ECONOMIC HISTORY READINGS

Class 17, 21, 22

H A N D O U T

A.Y. 2020 – 2021 EDITION

Written by: Emma Farabegoli
Reviewed by: Maria Mazza, Benedetta Magni

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READINGS FOR THE FIRST PARTIAL

Cameron, R. and L. Neal [2016]; A Concise Economic History of the World (Oxford University Press), Ch. 5, pp. 100-134

Europe's second growth spurt. Sustained population growth from the middle of 15th century to the middle of 17th century. Characteristics:
- Greatly expanded geographical horizons with all-water routes between Europe and Asia and conquest/settlement of the Western Hemisphere; greatly expanded supply of resources
- Relative decline of Italy after a series of invasions and loss the monopoly on spice trade
- Portugal and Spain as leading economic powers of Europe, benefiting from spice trade and gold/silver mining in their American empire
- Central, eastern and northern Europe economically less important due to religious/dynastic wars and no longer being on important trade routes
- Biggest winners from the changes associated with big discoveries were the regions around English Channel and North Sea. France gaining somewhat less due to wars and policies unfavourable to business/agriculture. In England, The Wars of the Roses decimated the great nobility and led to the rise of the gentry. In Low Countries, Antwerp initially became the most important port in Europe in 16th century. After Dutch Revolt against Spain, southern provinces declined in importance and the trade shifted to the newly-independent north with Amsterdam becoming the trade and financial metropolis of 17th century.
- No major technological breakthroughs.

Population and the level of living.
General growth in population from 70 mil to 105 mil between mid-15th century and mid-17th century. However, the growth was not uniform and was related to productivity of agriculture: people migrated from mountainous and infertile regions (e.g. Wales) to the more prosperous plains and lowlands (e.g. Southern England), creating overpopulation there. Additionally, plots were becoming smaller as a result of partible inheritance. This led to migration to the cities from the countryside and urban population grew more rapidly than the total, contributing to the creation of lumpenproletariat — poor, unskilled urban workers. Overseas migration was negligible.

Exploration and discovery

The age of discovery was preceded by notable technological progress in ship design, shipbuilding, navigational instruments (e.g. compass) and cartography. Ships became more manageable, more seaworthy and with greater cargo capacity, allowing for longer voyages. The Italians were early leaders in the art of navigation, but conservative in ship design and lost their leadership to Portuguese. A particularly important figure was Prince Henry the Navigator of Portugal, who encouraged the exploration of the African coast and sponsored frequent expeditions in the first half of 15th century, which laid the foundation for subsequent discoveries.
Timeline of important discoveries

- Cape of Good Hope by Bartholomew Diaz in 1487
- Vasco da Gama's voyage to India in 1497-1499 around Africa and back with a cargo of spices proved to be extremely profitable and attracted further commercial interest, which fuelled Portuguese expansion with trading posts into Mozambique, Persian Gulf, India, China, Japan in 15th century; displacing Arabs and Venetians there
- Christopher Columbus (under Spanish patronage) discovery of West Indies in 1492.
- Pedro de Cabral claimed Brazil for Portugal in 1500 after Treaty of Tordesillas (1494) divided the non-Christian world in half for the purpose of further exploration, with the western half reserved for Spain and the eastern for Portugal
- John Cabot (under English patronage) discovered Newfoundland and Nova Scotia in 1497 and Frenchman Jacques Cartier explored St. Lawrence River in Canada in 1534. This initially evoked little interest from the French and the English.
- Ferdinand Magellan (and his officers) sailing around the world in 1519-1522

Overseas expansion and feedback to Europe

The 16th century in terms of European overseas expansion and colonial conquest belonged almost exclusively to Spain and Portugal.

- By 1515 the Portuguese had made themselves masters of the Indian Ocean. In 1505 Francisco de Almeida was named the first Portuguese viceroy in India. He captured and established several cities and forts on the East African and Indian coasts and in 1509 completely destroyed a large Muslim fleet in the Battle of Diu.
- In 1509 Alfonso de Albuquerque (of Portugal) captured Ormuz at the entrance of the Persian Gulf and established a port at Malacca which controlled the passage to the Celebes and the Moluccas, from which the most valuable spices came. In 1515 he captures Ceylon.
- The Portuguese established also trade relations with Siam and Japan. The Portuguese wanted to maintain control over port cities and did not attempt to invade the interiors of India, Africa or South America.
- The Spanish Empire proved to be even more profitable. Between 1519-1521 Hernando Cortez effected the conquest of the Aztec Empire in Mexico. Francisco Pizarro conquered the Inca Empire in Peru in 1530s.
- The Spanish undertook from the beginning to colonize and settle the areas they conquered. The introduced European mining methods to the rich ore deposits of Mexico and the Andes. Major conquered cities were reorganized as military compounds with local powers of taxation and the responsibility of maintaining civil order. They also brought European techniques, equipment, and institutions to the New World and imposed them by force on the Indian population.
- The Spanish also introduced European diseases to New World which downsized local population from 25 million to only a couple million and the Spanish brought African slaves to Western Hemisphere to compensate for the shortage of work force.
- The transplantation of European culture together with modification and occasional extinction of non-Western cultures, were the most dramatic and important aspects of the expansion of Europe which on the economic side resulted in a great increase of volume and variety of goods traded (gold, silver, dyestuff, coffee, cocoa, tea, cotton, sugar, tobacco, Chinese porcelain)

The Price Revolution

The flow of silver and gold from the Spanish colonies greatly increased Europe's supplies of monetary metals, at least tripling them in the course of sixteenth century. The most immediate and obvious result was a spectacular and prolonged rise in prices which varied from region to region and by commodity group. In general, the rise in wages lagged far behind the rise in commodity prices, resulting in persistent declines in real wages in Spain, Italy and France. But the wages in Holland and southern England remained higher than in southern Europe which created divergence in real wages that would only increase in coming centuries. Price revolution redistributed the income and wealth of both individuals and social groups. The root cause of the decline in real wages was a result of the interrelations between demographic behaviour and agricultural productivity.

Agricultural Technology and Productivity.

The simple explanation for the cessation of European population growth in the 17th century is that the population has outgrown its ability to feed itself adequately.

- Agriculture was the main economic activity
- Manual labour was by far the most important factor of production. For Europe as a whole the average agricultural productivity in the 16th century was probably not higher than in the 13th century and it clearly declined in the 17th century.
- Because of the growth of population more pastureland was needed. More land was brought under the plough during this time both by cultivation of wastelands and converting pastures to arable farmlands. In case of wasteland decrease in the productivity of the land was expected. The reduction of pastureland ➡️ a reduction in livestock ➡️ a decline in the amount of fertilizer and decrease in meat consumption with adverse impact on the health of the population.

Two principal types of tenure existed at the time: long-term leases where peasants paid fixed rents in kind or in cash and acted as independent decision-makers and sharecropping where the landlord furnished all the stock and equipment, shared the decision-making process and took a portion of the crop.

- Northern and western Europe

    - Predominance of subsistence agriculture. Primitive agricultural techniques prevailed, stock raising was important, most land was being held in the name of clans of tribal chiefs, no ties of servility
- In Europe east of the Elbe and north of the Danube o Personal bondage or serfdom
    - The system of direct exploitation of large estates for the benefit of the territorial lords was implemented
- The Mediterranean area. Italy.
    - Most diversified agriculture of Europe in terms of structure (peasants, independent tenant farmers, sharecroppers, hired labourers) and grown foods.
    - Agricultural output failed to keep up pace with the growth of population partly due to deforestation and soil erosion.
- Spain
    - The Arab and Moorish people were excellent in agriculture but they were expulsed from the country and so the agricultural skills and knowledge.
    - Land belonged to the church and to the aristocracy. Peasants often fell into debt peonage.
    - Rivalry between peasants and sheep owners. Sheep masters were granted unlimited grazing on common lands by the government because of the merino wool which was in demand and expensive. However, this was detrimental to agriculture.
- Low Countries
    - The most progressive agricultural area in Europe with the first "modern" agricultural economy.
    - Specialization lead to the transformation of the economy, the peasants were producing goods for the sale rather than for the inner consumption. The Dutch produced high quality dairy, livestock and horticulture products.

Industrial Technology and Productivity

The industry developed at a very low pace also due to the opposition of the authorities who feared unemployment as a result of labour-saving innovations and monopolistic guilds who feared competition. Such innovations as water-powered mills, the swivel loom and the stocking frame took a lot of time to spread along the continent.
The textile trades remained the largest industrial employer in Europe followed by the building trades. The cloth industry continued to be widely dispersed, with much production carried on for the household and for local markets, but some regions also specialized in production for export. The English industry expanded prodigiously. E.g. in the Middle Ages wool bad been England's principal export, in the 16th century ➡️ unfinished cloth, in the beginning of the 17th century ➡️ undyed cloth and in the end of the same century all cloth was exported in a finished condition. England became the largest exporter in the cotton industry.
Shipbuilding underwent a profound transformation in the Dutch Netherlands. Some elements of mass production techniques and rationalization of their shipyards were introduced at the time.
New ship design was invented. Flyboat – a specialized commercial carrier was designed for bulky, low-value cargoes and was operated with smaller crew.
In metallurgical industry blast furnace was invented which allowed for the faster and cheaper production of iron. Principal centers of iron-production included Low Lands, Germany, northern Italy, Sweden.
Timber was in great demand for construction, shipbuilding, metallurgy and domestic heating. The timber shortage led to the search of substitute materials and fuels: brick and stone for building, peat and coal for fuel. Coal had been mined in Germany and the Low Countries as well as England and the demand for coal has been steadily increasing mostly due the development of industry.
The invention of the printing press greatly increased the demand for paper and this gave a rise to the paper industry as well.
Still, the degree of specialization of European economy was low and it still depended on agriculture.

Trade and trade routes

By far the greatest part of commercial exchange was local and was mainly small scale and varied little either over time or from place to place.
In distant trade the shift from Mediterranean toward the northern seas occurred. The Dutch and the Flemish were very aggressive and efficient merchants and virtually all of the trade between northern Europe and France, Portugal, Spain and the Mediterranean was in the hands of the Dutch. The Dutch also led an aggressive policy in

overseas trade and in the middle of 17th century took over Portugal and established their mastery in Indonesia, Ceylon and India. The trade routes with Brazil, Caribbean and Middle East were also established.
In inland trade, the river traffic was important. The improvements in ship design and construction lowered costs of transport. A reduction in the risks of maritime travel, both natural and manmade, by better navigational techniques and the action of navies in putting down pirates also contributed to changes in commodities trade.
Special branch of commerce dealt with the slave trade. The slave trade was dominated in turns by the Dutch, the French and the English. Triangular trade: the European ships packed with firearms, knives, cutlery, beads, liquor would sail for the West African coast where it would be exchanged for as many slaves as a ship could carry and then the slaves were traded in the New Hemisphere for sugar, tobacco etc.

Commercial organization

The greatest business dynasty of the 16th century was the Frugger family. They were in silk and spices trade, they also accepted deposits, dealt extensively in bills of exchange and were heavily involved in financing the monarchs of Spain and Portugal. There were also other prominent merchant dynasties. The form of organization they favoured was the partnership, usually formalized by written contracts specifying the rights and obligations of each partner.
Commercial organization in England was one of the most advanced in Europe. The Merchants of Staple (dealing in wool, skins, lead and tin) functioned somewhat like a guild (each merchant traded at his own account), but they had a common headquarters and warehouse and obeyed a common set of rules.
In the latter half of the 16th century the English set up a number of monopolistic trading companies: the Muscovy Company, the Spanish Company etc. Some of these companies adopted the regulated form, but others became joint-stock companies.
The existence of a single spot entrepôt in northwest Europe – first Bruges, then Antwerp, then Amsterdam is doubly significant. First it is the evidence of the growth in the size of the markets and of market oriented production. Secondly, the fact that there was only one indicates the limits to that development.
The organization of the entrepôt was already highly sophisticated. The first requirement is a burse or marketplace. The goods displayed were used as samples and after the order would be shipped from warehouses. The use of credits was widespread as well as bill of exchange and assignment in banks.

Cameron, R. and L. Neal [2016]; *A Concise Economic History of the World* (Oxford University Press), Ch. 6, pp. 135-165

The economic policies of emerging states had a dual purpose:

- to build up economic power to strengthen the state
- to use the power of the state to promote economic growth and enrich the nation.

The Common Elements

- Bullionism – the attempt to accumulate as much gold and silver within the country as possible and to prohibit their export.
- The acquisition of colonies with gold and silver was the major goal of exploration and colonization.
- Merchants could influence the councils of state and it was they who devised the argument for a favourable balance of trade.
- Domestic production was encouraged by excluding foreign manufactures or by setting high protective tariffs as well as by granting monopoly to domestic producers.
- Navy was a valuable asset of every country.
- Theorists of all nations stressed the importance of colonial possessions as an element of national wealth and power.

Spain and Spanish America

In the 16th century Spain was envied by the rest of the Europe.

1. It was a vast and powerful empire
2. It had substantial economic bases such as valuable merino wool, well established horticulture, iron and textile industries and important mineral deposits including lead, iron, copper, tin and silver.
3. Colonies that supplied gold and silver.

The decline of the Spanish empire was caused by:

1. Constant wars either to enlarge its territory or to battle the rivals as well as conquering and governing America
2. Keeping up high standard of living of Spanish monarchy
3. High and unevenly distributed taxation, one of the heaviest in the Europe
4. Vast government expenditures forced the monarchs to borrow money from others
5. As the costs of cereal production began to increase, the land was used for other purposes and the grain shortage became worse; when foreign grain was imported duty free and this discouraged cereal growers even more.
6. The cloth industry experienced the same. The expansion of demand domestically and in the colonies raised costs as well as prices and since the supply could not keep up with the increasing demand, the export of duty free cloth was introduced which caused severe depression in the cloth industry.
7. The Spanish Inquisition forced many skilled Jews to emigrate taking with them their wealth and experience. The monarchs also persecuted the Muslim Moors on religious bases and the majority was expelled and a minority was converted to Christianity.
8. American colonies were monopolized and very restrictive policies were set in terms of trade with other countries.
9. Intercolonial trade was discouraged and production of different sorts of food and goods was prohibited in the colonies to stimulate domestic production.

Portugal

Portugal was relatively small and poor country but thanks to several fortunate circumstances managed to become one of the most powerful empire:

1. The Portuguese made the breakthrough in the Indian Ocean because the polities in that area were weak and divided.
2. They were skilled men in ship building and experienced navigators
3. The courage, zeal and rapacity of local men to follow their King over the sea in search of riches.

The Portuguese did not want to invade the mainland of their colonies, they were happy to control the sea trade except for Brazil where they transplanted the sugarcane.
The problem was that the Portuguese never really had the control of the sources of the spice supply because they were spread too thin and because the crown was obliged to rely on royal officials for enforcement of its monopoly and they were inefficient and very evasive. The crown tried to monopolize the product from colonies especially tobacco from Brazil and what it could not monopolize it tried to tax. But because of the royal agents the revenues were not enough and the crown had to borrow. The Inquisition also spread to Portugal and Portugal lost much wealth and many skilled workers and professional people to more tolerant cultures.

Central, Easter and Northern Europe

In Germany, the advocates of economic nationalism propounded a series of principles that almost deserve to be called a system. The main goal was to strengthen the territorial state: promote domestic manufactures, restrict foreign trade, reclaim the wastelands.
The most spectacular instance of a successful policy of centralization was Hohenzollern Prussia. Hohenzollern was a dynasty that came to power in 15th century and expanded their possessions by means of inheritance. They used some of the mercantilist policy, such as protective tariffs, grants of monopoly and subsidies to various fields of industry, inducements to foreign entrepreneurs and skilled workers to settle in their underpopulated land. States resources were carefully managed and they could create an efficient state mechanism through centralization of their administration, punctilious collection of taxes, frugal expenditures. Their one notable extravagance was their army which at times accounted for more than half of the state budget.
The opposite example was the disappearance of the kingdom of Poland. They had no effective central authority, economy was poor, three quarters of the population were legal serfs bound to the land and with no rights.
The limitations on the ability of the state to shape the economy even when its policies were experienced over a large territory are highlighted by the history of Russia. In the 16th and 17th centuries Russia developed politically and economically in isolation from the West. The vast majority of population was engaged subsistence

agriculture in which the institution of serfdom loomed large and actually increased in severity over the centuries. The authority of the tsar grew stronger over the time. Peter the Great set out to modernize his country including its economy. In addition to obliging his courtiers to wear Western-style clothing he travelled extensively in the West, observing industrial processes as well as military fortifications and procedures. He gave subsidies to Western artisans to settle in Russia and practice their crafts and commerce. He built the city of St Petersburg which gave him a more convenient port than Archangel and set out to build the navy. He also introduced new system of taxation and reformed his central administration. He established a lot of the enterprises (cloth factories, mines etc.).
In the 16th and 17th centuries Sweden played a role as a great political and military power. Its success resulted partly from its abundance of natural resources, especially copper and iron and partly from the administrative efficiency of its government. The Swedish monarchs early achieved a degree of absolute power and used their power wisely overall. They abolished the internal tolls and tariffs that hindered commerce in other countries, instituted a uniform system of taxation, undertook other measures that favoured the growth of commerce and industry.
Italy has been excluded from the survey of the policies of economic nationalism because it was a victim of great-power rivalries and was repeatedly invaded, occupied and dominated by other countries and had little opportunity to initiate or execute independent policies.

Colbertism in France

The archetypical example of economic nationalism was the France of Louis 14th. He was the symbol and the power but responsibility of policymaking and implementation devolved on his principal minister for more that 20 years Jean-Baptiste Colbert. He attempted to systemize and rationalize the apparatus of state controls over the economy that he inherited from his predecessors but he never fully succeeded even to his own satisfaction.
The main reason of his failure was the inability to extract enough revenue from the economy to finance Louis's wars and extravagant court. That, in turn, resulted partly from France's haphazard system of taxation which Colbert was never able to reform.
He implemented some regulations in industry which added a lot to the cost of production and they hindered technological progress.
Colbert sought to create an overseas empire. He created monopolistic joint-stock companies to conduct trade with both the East and West Indies but the companies were in effect government proxies in which private individuals were induced into investing and within a few years they were all moribund.

The Prodigious Increase of the Netherlands

Dutch economic policies differed significantly from the others.

1. The structure of the Dutch Republic did not have absolute monarchy.
2. The Dutch economy depended on international commerce to a much greater degree than others.

The States-General, the legislative body of the republic, concerned itself exclusively with foreign policy leaving domestic matters in the hands of the provincial states and town councils. Moreover, all decisions had to be reached by a unanimous vote in which each province had one voice; failure to agree forced the delegates to return to their provincial states for consultation and instruction.
The Dutch imported the goods from the North Sea, the Baltics, The Mediterranean, Bay of Biscay. They brought grain, timber, naval stores from the Baltics and exchanged it for wine, salt and other products. They exported herring, butter, cheese, industrial crop. The shipbuilding industry developed to a high level of technical perfection. The northern Netherlands benefited in great measure from free immigration from other parts of Europe because of a policy of religious toleration in the Netherlands.
The Dutch wanted the right to merchandise in all waters with all countries and colonies. Mare Liberum the famous treatise by Hugo de Groot is a brief in the negotiations between the Dutch and the Spanish that lead to a truce with Spain in 1609.
The citied in the Netherlands followed free trade policies. No tariffs encumbered exports or imports of raw materials, the trade in precious metals was free. Amsterdam with its bank, bourse, favourable balance of payments quickly became the world emporium for gold and silver.
Freedom was also the rule in industry. Most major industries operated entirely outside the guild system except for "College of Fishery" which regulated the herring fishery. In terms of colonies the Dutch established territorial control and became "state within a state".

Constitutional Monarchy in Britain

In 1688, the constitutional monarchy under parliamentary control was established in England.

The English Parliament always wanted to approve new taxes.
The so-called Glorious Revolution constitutes a major turning point not only in political and constitutional history but in economic history as well. In the 1690s the Bank of England was created, a funded debt was established, a re-coinage of the nation's money and the emergence of an organized market for public as well as for private securities. It took some time for the Britain to become the real constitutional monarchy and there were some stumbles along the way.
Navigation Act was issued, the general purpose of which was to reserve a country's international trade for its own merchant marine. The British also tried to protect the English merchant marine and fishing fleet and it became the cornerstone of England's colonial system. Under these terms of the laws all goods imported into Great Britain had to be carried in either British ships or ships of the country from which the goods originated. In addition, all colonial imports of manufactured goods from foreign countries had to be landed first in Great Britain.
The Navigation Acts had yet another unintended effect: the loss of a large part and the economically most progressive and prosperous part of the "old" British Empire, the North American colonies.
In Britain the growth of parliamentary power at the expense of the monarchy brought with it better order in the public finances, a more rational system of taxation and a smaller state bureaucracy. Parliamentary control was most effective in economic relations with the outside world and Parliament followed a policy of strict economic nationalism

Cameron, R. and L. Neal [2016]; *A Concise Economic History of the World* (Oxford University Press), Ch. 7 pp. 166-193

The Dawn of Modern Industry

Proto-industrialization: term was first used with reference to the linen industry of Flanders: cottage-based industry organized by entrepreneurs in Ghent who exported linen cloth to distant markets.

- Dispersed, usually rural workers organized by urban entrepreneurs (merchant -manufacturers) who supply the workers with raw materials and dispose of their output in distant markets
- Cottage industry, domestic industry and putting-out system

Proto-industrialization usually refers to consumer goods especially textiles. Well before the advent of the factory system in the cotton industry, other highly capitalized and large-scale industries existed (manufacture royales – skilled artisans working under the supervision of a foremen, deposits in coal industry etc.). They were overshadowed in the 18th century by the rise of new forms of enterprises.

Characteristics of Modern Industry

The most important difference between preindustrial and industrial societies is the diminished role of agriculture: less importance counterbalanced by greater productivity. These differences were first seen in Great Britain and Scotland.
Main features of modern industry:

- Extensive use of mechanically powered machinery: machines performed tasks that had been done more slowly or not done at all. Elementary machines like wheel, pulley, lever had always been used.
- Introduction of new, inanimate sources of power, especially fossil fuels: substitution of coal for wood and charcoal for fuel, introduction of steam engine in mining, manufacturing and transportation.
- Widespread use of materials that do not normally occur in nature: new artificial or synthetic materials
- Larger scale of enterprises in most industries

The industrial Revolution: a misnomer

Early descriptions emphasized "great inventions" and the dramatic nature of changes: "The change was sudden and violent. The great invention was made in comparatively short space of time". More recently some scholars devoted their time to measuring the changes in industrial production, national income and discovered they were very modest. According to Ashton, "the changes were not merely "industrial" but also social and intellectual.".
The word "revolution implies a suddenness of change that is not proper of economic processes".

Prerequisites and Concomitants of Industrialization

Intellectual changes were surely the most fundamental changes, in the sense that they encouraged or permitted the others.

- Possibility of harnessing the forces of nature: the scientific achievements associated with Newton, Descartes, Copernicus reinforced such ideas. The influence of Bacon ("knowledge is power") led to founding the "Royal Society". However, it was not until the 19th century that the scientific theories provided the foundation for new processes and industries. Nonetheless, the scientific method was being applied (observation and experiment) for utilitarian purposes. A major part of the innovations was made by ingenious self taught mechanics and autodidacts. It's better to say trial-and-error than experimental method in this case.
- Increase in agricultural productivity: by the end of the 17th century 60% of people in England were involved in agriculture, especially food production. The most important innovations were o convertible husbandry with alternation of field crops with temporary pastures in place of permanent arable land and pastures: restoring fertility of the soil through improved rotation (ex: leguminous), carrying a large number of livestock, thus producing more dairy, meat and wool. o improved rotation and selective breeding
- A precondition for both were enclosures. Before it was impossible to achieve agreements on the introduction of new crops or rotation; and with livestock grazing in common herds it was difficult to perform selective breeding. The most famous enclosures were those carried out by the Parliament acts between 1760-end of Napoleonic Wars. But there were also private agreements.
- A concomitant phenomenon was the gradual tendency towards larger farms. By 1851 about 1/3 of the farms were larger than 300 acres. Even so, the occupiers of small farms outnumbered those of the others by almost 2:1. This is because small farmers were owner occupiers while larger farmers were capitalistic tenants hiring people to cultivate their fields. It's usually thought that enclosures depopulated the countryside but actually there was an increase in the demand for labour (for the new techniques). Only in the II half of
- 19th century with the introduction of machines as threshers and harvesters, the demand diminished.

Increased productivity enabled the agriculture to feed a burgeoning population at steadily rising standards of nutrition. It produced surplus for export before the rate of population growth overtook the rate of increase in productivity. The relatively prosperous rural population provided a real market for manufactured goods (agricultural implements, porcelain). General process of commercialization in the entire nation.
The origins of the English banking system are obscure, but in years after the Restoration of 1660 some goldsmiths in London began to function as bankers. They issued deposits that circulated as banknotes, and granted loans to creditworthy entrepreneurs. The founding of Bank of England in 1694 forced private bankers to stop issues of banknotes (monopoly), which nonetheless continued to function as banks of deposits (accepting drafts and discounting bills). The Royal Mint was inefficient: the denomination of the coins was too large to be useful in paying wages or in retail trading. To fill the gap merchants issued scrips and tokens that served the needs of local monetary circulation: origin of country banks.
The euphoria of the Glorious Revolution resulted in the creation of joint-stocks companies in the 1690s (like the Bank of England). It culminated in the financial boom known at the South Sea Bubble (the South Sea company was created in 1711 with the sole purpose of raising money to prosecute the war). The bubble burst in 1720 when Parliament passed the Bubble Act: it prohibited the formation of joint stock companies with the express authorization of the Parliament (normally very loath to grant it). The Act was repealed in 1825. The IR started without such an important provision of capital. Another consequence of the Glorious Revolution was to place the public finances in the hands of the Parliament: it reduced cost of public borrowing and thereby freed capital for private investment. It is questionable whether much of it went into the industry directly (but surely indirectly through transportation & infrastructure investment).
The movement of a large quantity of bulky-low valued goods required cheap and dependable transportation. Before the railway era water routes provided the most economical and efficient arteries of transport (island location & good ports). But the demand for improved transportation facilities increased: river and harbour improvements, canal construction (with private companies chartered by act of Parliament – an exception to the Bubble Act). There was also a need for inland transportation. The roads were responsibility of parishes, using the forced labour of local inhabitants (deplorable state). Parliament created turnpike trusts that undertook to build and maintain stretches of good roads.

Industrial Technology and Innovation

A century before the industrial revolution (i.e. mechanization of cotton industry), two innovations were made whose impact was even greater to industrialization, even if many years passed before their importance was felt:

1) process for smelting iron ore with coke (no more reliance on charcoal): in 1709 Darby processed coal fuel in the same way other ironmasters made charcoal out of timber. He heated coal in a close container to drive off impurities in the form of gas, leaving a residue of coke, an almost pure form of carbon, which he then used as fuel in the blast furnace to make pig iron (ghisa). The continued rise of the price of charcoal together with such innovations as Henry Cort's puddling and rolling process of 1783 finally freed the production of iron from reliance on charcoal fuel.
2) invention of the atmospheric steam engine: it's a new and powerful prime mover that supplemented and eventually replaced wind and watermills as inanimate sources of power. It was first employed in mining industries. Expanded demand for coal: need to extract it from deeper mines. Some devices were invented but presented technical problems (Thomas Savery invented a steam pump, which he called "The Miner's Friend", but had practical defects such as the tendency to explode). Thomas Newcomen, however, set out the remedy to these defects by trial-and-error and invented the atmospheric steam pump. It was mainly employed in coals mines where coal was cheap. The major deficiency was large consumption of fuel: Watt took out a patent for a separate condenser (eliminating the need for alternate heating and cooling the cylinder). A problem was to find a smooth cylinder to prevent the steam from escaping. He formed a partnership with Boulton and together used Wilkinson's new machine for making cannon barrels as an engine cylinder: commercial production of steam engines. With several other improvements, they began to be used in other industries such as flour milling and cotton spinning.
3) John Key's flying shuttle (1733): enable one person to do the work of two, nonetheless increasing the demand for yarn (filo)
4) James Hargreaves' spinning jenny (invented in 1764, patented in 1770): spinning wheel with a battery of several spindles instead of one.
5) Richard Arkwright's water frame (1769): since it operated with water power and was heavy, factories were built near streams and required few adult males, while children and women were mostly used.
6) Samuel Crompton's mule: combined elements of the frame and jenny: it could spin finer and stronger yarn. After being adapted for steam power, it became the favourite machine for spinning. It allowed the large-scale employment of children and women (like the frame) but also the concentration of factories in cities where coal was cheaper (unlike the frame).
7) Edmund Cartwright's power loom (1785): replaced the handloom weavers.

Textile industry: The cotton industry had grown prominence in the putting-out system. Wool was more important in England and Wales, while linen in Scotland and Ireland (it was the material used to bury people). The silk industry used factories and water-powered machines in imitation of the Italians, but the demand was low due to high cost and continental competition. Cotton cloth was introduced in Lancashire in the 17th century. Since it was new, it was less subject to restrictive legislation and guild rules and to traditional practices that obstructed technical change. Some labour-saving inventions:
Raw materials: the supply was not keeping up with the demand because it was costly to separate seeds by hand even with slave labour. The invention of the "gin" (engine) made the South US the major supplier of raw material. The drastic reductions in the price of cotton manufacture affected the demand for wool and linen: these industries were encrusted with tradition and regulation and the physical characteristics of their raw material also made them more difficult to mechanize.
Manufacture industry: Also, other industries were involved in drastic changes. Adam Smith wrote in the Wealth of Nations of the great increases in productivity in a pin factory just by specialization
and division of labour. It's a symbol of all the industries involved in the manufacture of consumer goods (pottery, pans, clocks etc).

1) pottery: The introduction of a fine porcelain from china led to a fashion to substitute it for gold and silver plates + popularity of tea and coffee led them to prefer "chinaware" to wooden or pewter bowls.
2) chemical industry: advances resulted from the work of Lavoisier + empirical experiment of manufacture of soap, paper, glass, dyes etc.: Chemists learned from the industrial use of substances as much as the

latter benefited from chemical science. An example: sulfuric acid, known to alchemists, whose production was expensive and dangerous due to corrosive properties. Samuel Garbett started producing it on a larger scale and replaced sour milk and buttermilk in the textile industry. It was then replaced by chlorine gas as bleaching agent. Another group of widely used chemicals was caustic soda and potash.

Coal industry: coal mines were responsible for the first railways. In the 17th century, tracks and rails had been used near mines to facilitate haulage, with horses as the usual draft animals. The steam locomotive was the product of a complex evolutionary process with many ancestors.: steam engine: too heavy and cumbersome and did not generate enough power per unit of weight to serve as locomotive. Moreover, Watt himself opposed to this use (dangerous) and as long as his patent was in force (until 1800) effective progress was barred. Richard Trevithick built the first locomotive (not an economic success): road couldn't bear the weight. He built another for coal mines but again problem with weight. George Stephenson was more successful: he built a stationary steam engine with cables for hauling empty coal back to the mine from the loading wharves. In 1822, he persuaded a mine to use it instead of horses.

Regional Variation

- England: The south was wealthy but mostly agricultural. On the contrary, the north lagged behind most other regions in income and wealth. o coal fields in the northeast and Midlands + Lancashire.
  - cotton in Lancashire + East Midlands (Derby and Nottingham).
  - iron industry: West Midlands (Birmingham), South Yorkshire and northeast (New Castle).
  - woollen industry: Leeds + East Anglia
  - pottery industry: Staffordshire.
- Wales: large iron industry mainly concentrated in the south (Swansea). The interior part of the country, infertile and mountainous, remained pastoral and poor.
- Scotland: Unlike Wales, maintained its independence from England until 1707. It was backward and poor, the majority of population still engaged in near-substance agriculture. Less than a century later, it produced more than a fifth of cotton textiles and more than a fourth of the pig iron. Scotland remarkable transformation has long been debated. o not a lot of natural resources
  - its inclusion in the British Empire gave access to the market (especially colonies in North US).
  - educational system, with parish schools and 4 universities (#2 in England)
  - precocious banking system, free of government regulation, gave easy access to credit and capital.
  - absence of a central government
- Ireland: its population more than doubled without appreciable industrialization or urbanization. When the potato famine struck in 1840s, Ireland lost a fourth of its population in less than a decade through starvation and emigration.

Social Aspects of Early industrialization

Population increased during the industrialization, until reaching a peak in 1811-20 (then slightly declined). It was a general European phenomenon, but certainly related with industrialization (in part):

- the rate of birth rose for early marriages (cottage industry allowed couple to set up households without waiting for a farmstead or completing an apprenticeship)
- death rate declined for the introduction of inoculation against small pox + vaccination + introduction of new hospitals + rise of standard of living
- agricultural progress brought abundance and variety of foodstuffs, improving nutrition
- increased coal production made for warmer dwellings
- soap production indicated awareness of personal hygiene
- cotton cloth contributed to higher standards of cleanliness.

Immigration and emigration affected the population. The economic opportunities of England and Scotland attracted Irish people (even before the famine) + British, Scottish, Welsh and Irish left for English colonies. Even more important for economic process was internal migration: From the countryside to growing industrial areas, it created two important changes in the special distribution: a shift in density from the southeast to the northwest and increasing urbanization. The census of 1851 classified more than half of the population as urban . The growth of city was not an unmixed blessing: non-existent sanitary facilities, no drainage facilities, narrow and unlighted streets. Deplorable conditions arose from inadequate planning and lack of experience of local

authorities. Although the agricultural force continued to grow, the increase of the rural population was not absorbed by cottage industry as well as purely agricultural labour.
Factory workers received higher wages than agricultural workers/workers in domestic industry because of higher productivity as result of technological advance and provision of more capital per worker. This is only true for adult males, not children and women (the idea that their employment is a novelty of the IR is misleading). Real wages started rising due to high demand of labour which increased the standard of living. Some groups like factory workers and skilled artisans improved their lot, while handloom weavers disappeared because of technological obsolescence. On balance, there was a gradual improvement, even if the distribution of wealth became more and more unequal.

Cameron, R. and L. Neal [2016]; *A Concise Economic History of the World* (Oxford University Press), Ch. 14, pp. 331-359

Fundamental economic changes (population, resources, and institutions) occur over long periods of time, while political changes can occur quite abruptly, sometimes bringing in their wake economic changes as well. An example is WWI that disintegrated the intricate but fragile system of the international division of labour that had brought unprecedented levels of wellbeing in Europe. The world could not easily be put together again after that.

The Economic Consequences of World War I

Before it became known as WWI it was called "Great War": for concentrated destructiveness it surpassed anything in human history until WWII.

- Physical destruction: Most of the damage – destruction of houses, industrial plants and equipment, livestock and farm equipment, transportation and communications – occurred in northern France, Belgium, north-eastern Italy, eastern EU. Ocean shipping also suffered greatly. In addition to this, loss of production due to shortages of manpower and raw materials + depreciation of equipment without maintenance, over-cropping and lack of fertilizing.
- Disruption and dislocation of economic relations: didn't cease with the war. Prior to 1914 there was freed trade, while during the war the governments imposed control over prices, production and allocation of labour. These controls artificially simulated some sectors and restricted others. Although most of them were removed at the end of the war, the pre-war relationships didn't re-establish themselves quickly.
- Disruption of foreign trade: before the war US, Germany, UK and France were not only the leading commercial nations but also one another's best trading customers and suppliers. Commercial intercourses btw France and Germany ceased immediately, while US tried to stay neutral but was hampered by both UK and Germany. UK imposed a blockage on German ports: they were prohibited from the seas and their cargoes confiscated. So Germany turned to submarines and attacked unarmed vessels, neutral as well as British, passenger & merchant ships. The sinking of Lusitania with 100 American passengers made Germany moderate its policy just for a while. The submarine warfare was then a major cause of US's entry in the war.
- Loss of foreign markets: had even longer-lasting effects. Germany was completely cut-off from overseas markets and, without the ingenuity of inventors and scientists (fixation of atmospheric nitrogen, for fertilizing and gunpowder), would have capitulated much sooner than it did. Even GB had converted its large merchant marine from normal uses to war production: overseas nations undertook to manufacture for themselves or to buy from others overseas nations rather than from EU (e.g. Latin American and Asian countries).
- Upset equilibrium in world agriculture: By greatly increasing the demand for foodstuffs and raw materials at the same time, the war stimulated production in both established areas (US) and virgin areas (Latin America). This led to overproduction and falling price (especially wheat, sugar and rubber). Farmers increased their acreage and bought new land at war's inflated prices, but when prices fell they couldn't pay off their mortgages.
- Loss of income from shipping and other services:

1. The German marine had to be handed over in payment of reparations.
2. GB marine was damaged by German's submarines
3. US became a major competitor in shipbuilding.
4. London and other centres lost some of their income from banking, insurance and other services that were transferred to NY and Switzerland.

- Loss of income for foreign investments: GB, France and Germany were the main foreign investors before the war and this income paid their import surplus. Some were obliged to sell investments to purchase war materials + other investments declined because of inflation and related currency difficulties. French investments in Russia were not recognized. Germany investments were confiscated. US, on the other hand, went from net debtor to net creditor.
- Financial and monetary issues: general inflation: the pressures of wartime finance forced belligerent countries (#US) to go off the Gold Standard, which had served to synchronize price movements. All countries resorted to large-scale borrowing and printing of paper money. This caused prices to rise (but not in the same proportion). The disparity in prices and currencies made the resumption of international trade difficult after the war.

Economic consequences of the Peace

The Peace of Paris, instead of attempting to solve the serious economic problems caused by the war, exacerbated them (they didn't take account of economic realities). Two major categories of difficulties: 1) growth of nationalism 2) financial problems.

Growth of nationalism:

The treaties had the name of the suburbs of Paris where they were signed. Most famous is Treaty of Versailles with Germany. Restored Alsace and Lorraine to France and permitted the French to occupy to coal-rich Saar valley for 15 years + gave West Prussia and coal-rich Saar valley to Poland. It deprived Germany of 13% of its arable land, 3⁄4 of iron ore, 1⁄4 coal resources. Of course, its colonies in Africa and Pacific were already occupied by the Allies. In addition, Germany had to surrender navy, arms and ammunition, most of its merchant fleet, locomotives, trucks and other commodities + restriction on its army forces and Allied occupation of Rhineland for 15 years. The most humiliating clause was the "war guilt" clause: Germany and his allies were responsible for the war and had to pay. The statement was intended to justify monetary "reparations" (they didn't agree on that). Keynes, economic adviser of GB's delegation, resigned his position and wrote "Economic consequences of the Peace", not only for Germany but for all EU.
The break of the Austro-Hungarian empire resulted in 2 separated states. Czechoslovakia and Poland became new states. The Ottoman Empire lost all his territory #Istanbul. Serbia with new territories and united with Montenegro became Yugoslavia.: the old Austro-Hungarian empire had performed a valuable economic function by providing large free-trade area in the Danube basin, while new states were jealous of their boundaries and asserted their nationhood by trying to become self-sufficient (impossible for such small countries). Height of absurdity reached with the destruction of transportation system (they refused to allow trains to leave). Eventually agreements overcame these extremes but other types of restrictions remained.
Nationalism was not restricted to new states: during its civil war Russia disappeared and when it re-emerged as Soviet Union, its economic relations were conducted in a completely different manner. The state became the sole buyer and seller in international trade. Countries that were dependent on foreign trade resorted to a variety of restrictions: high tariffs, physical import quotas and import prohibitions. At the same time, they sought to stimulate their own exports by granting export subsidies. In GB high tariffs became an official protectionist policy in 1932 + negotiated numerous treaties abandoning the most favoured nation's clause. US, with already high tariffs before the war, raised them to unprecedented levels. The Emergency Tariff Act of 1921 placed an embargo of imports of German dyestuff (until they confiscated some German patents, there was no such industry) + Fordney-McCumber Tariff Act (1922) + Smooth-Hawley Tariff (1930). The adverse consequences of neo-mercantilism didn't stop with the immediate application of such laws. Each new measure provoked retaliation by other nations whose interests were affected. The foreign trade, which had doubled in the 2 pre-war decades, reached the pre-war figure in just one year.

Monetary consequences:

The financial disorders caused by the war and aggravated by the treaties led to a complete breakdown of the international economy. The problem of reparations was at the heart, involving inter-allied war debts and mechanisms of international finance.

Until 1917 GB was the main lender of the Allies. When US entered, it took over the role of chief financer (GB's resources were exhausted). Inter-allied debt amounted to more than 20 billion $, half from US government. Among EU allies the loans had been in name only: they expected to cancel them at the end of the war. They regarded US loans in the same light, since US was a latecomer and had contributed less in terms of manpower and materials. Although US agreed to reduce interest and lengthen the period of repayment, it insisted on repayment of the principal in full. At this point the reparation issue intruded.
France and GB demanded that German pay not only damages to civilians (reparations proper) but also the entire cost incurred by the Allies for the war (an indemnity): Wilson made no claims for US and tried to discourage the others. France wanted US to cancel debts but insisted in collecting reparations. GB suggested cancelling both reparations and debts. US refused to recognise any relationship btw the two. Meanwhile Germany had started to pay both in cash and kind, before the amount of the bill was known: the tot amount was 132 billion gold marks ($33 billion), about twice Germany's GDP.
In fact, the other allies could repay US only if they received an equivalent amount. But Germany's capacity to pay depended ultimately on its ability to export more than import to gain the foreign currency or gold in which payments had to be made. But the economic restriction and the weakness of Weimar's republic made this impossible. When Germany stopped payments, French and Belgium troops occupied Ruhr, forcing workers to deliver coal. They passively resisted, while the government printed huge quantities of paper money to pay workers, setting in motion a mechanism of inflation. The prices rose exponentially / the value of the mark fell until it was recorder an exchange value of 1$: 4.2 trillion. The mark was worth less than the paper on which it was printed. The authorities demonetized the mark and substituted a new monetary unit, the rentenmark, equal in value to 1 trillion of old marks. The consequences of inflation were not confined to Germany: in Austria introduction of "shilling" and problem with the franc as well.
As Keynes had predicted the international economy was confronted with a grave crisis. The French withdrew from the Ruhr at the end of 1923 without having accomplished their objective. An international commission chaired by Dawes, an American investment banker, proposed 1) a scaling down of annual reparation payments 2) reorganization of the Reichsbank 3) international loan of 800 million marks to Germany: the Dawes Loan (mostly from US) enabled Germany to resume payments and return to Gold Standard in 1924. Another flow of money from US was used for "rationalization"/"modernization". The inflation left scars: a few clever speculators gained enormous fortunes, while most citizens (especially the ones living on fixed incomes) suffered a severe decline in their standard of living. Significantly, both the Communists and Nationalists made large gains in the Reichstag elections of 1924.
Economic problems loomed large in post-war Britain. It lost foreign markets, investments, and a large part of mercantile marine and other sources of overseas income. They found themselves with a great responsibility, as victors. Rate of unemployment were very high (1/7 of the labour force): the measures taken by the government were weak and ineffective, such as a measure of relief payment. For the rest, they tried to pair expenditures to the bone, thus depriving the nation of urgently needed expansion and modernization of schools, hospitals, railways etc. Britain had abandoned the Gold Standard in 1914. Now there were some issues on its return:

1. How soon? It depended on the accumulation by the CB of gold reserves. It was deemed adequate by mid- 1920s
2. At what face value for the pound? Before the war, the pound was equal to $4.86, but inflation had been higher in GB. So, if they returned with this exchange rate they would have a commercial disadvantage. One the other hand, most GB investments were denominated in gold or sterling (a return to a lower rate would penalize them). Churchill decided to keep the pre-war parity, by reducing wages. Coal miners were among the most radical GB workers: with this severe wage cut they went on strike, but after only 10 days they ended in defeat against the risk of a civil war.

In spite of GB problems, most EU nations prospered in the 1920s. Reconstruction of physical damages had been achieved and under the newly created League of Nations a new era in international relations apparently had dawned. Yet the prosperity was fragile, depending on the continuous flow of funds from US to Germany.

The Great Contraction 1929-33

Unlike EU, US emerged from the war stronger than ever: 1) it converted from debtor to creditor 2) it won new markets at home and abroad 3) it established a favourable balance of trade: mass market, growing population and rapid technological advance were the key. Some argue that this prosperity was shared unequally. In

summer 1928, American banks and investors began to cut down their purchases of German and other foreign bond to invest in the NY stock market (also people with modest incomes were tempted to invest in the market). In 1929 EU was feeling the strain of the cessation of funds from US, and even American economy had ceased to grow. But with very high stocks prices, these negative signs were ignored.: "Black Thursday" and "Black Tuesday": a wave of panic cause stock prices to plummet. Banks called in loans and convinced more people to invest, whatever price they would bring. This caused further repatriation of funds from EU.
The stock market crash was not the cause of depression (already begun in EU and US), but it was a clear signal that it was underway. In May 1921 Creditanstalt (Vienna's Bank) suspended payments and although the Austrian government froze bank assets and prohibited the withdrawal of funds, panic spread in central Europe, especially in Germany. Under the terms of the Young Plan, which had replaced the Dawes plan, Germany had to make a further payment in July. President Hoover proposed in June a 1-year moratorium on all intergovernmental payments of war debts and reparations (thus recognizing the interconnection between them), but it was too late to stem the panic. GB, Argentina, Australia, Chile and 24 other countries abandoned the Gold Standard and suspended gold payments. Btw 1929-32 foreign trade fell drastically inducing falls in manufacturing, employment and per capita income
A principal characteristic of the economic policy of 1930-31 had been their unilateral application: the decision to suspend gold standard made without international consultation and without considering mutual repercussions: finally in June 1932, representatives of the main EU countries gathered in Lausanne to discuss the consequences of the end of Hoover moratorium:

1. Should Germany resume reparation payments?
2. If so, at what conditions? Both reparations and debts simply lapsed. Only Finland repaid all its debts.
1. He declared an 8th day of "bank holiday" to allow the banking system to reorganize
2. He took US off the Gold standard: he sent a delegate to the conference saying that the main responsibility was to restore domestic prosperity.
1. Monetary issues: decline in the quantity of money especially in US.
2. Real sector: fall in autonomous consumption and investment expenditure, which propagated by the multiplier mechanism + depression in agriculture and dependence of Third World countries on unstable markets + misallocation of stock of gold: both monetary and non-monetary causes, which can in great part be traced to WWI and peace settlement:

a. breakdown of Gold Standard
b. disruption of trade
c. nationalistic economic policies of 1920s.

The last major effort to secure international cooperation was the World Monetary Conference of 1933. Officially proposed by the League of Nations and adopted as a resolution at the Lausanne, the draft agenda looked at agreements to restore the gold standard, reduce tariff and import quotas and implement other forms of international cooperation. The role of US was considered crucial. Because of US election and the unwillingness of both candidates, Hoover and Roosevelt, to commit in advance, the conference was postponed to 1933. When Roosevelt took office, he took care of urgent issues:
What caused the depression?
Whatever the cause, there are some reasons for its length, which relate to the relative positions and policies of UK and US.: UK: key role in stabilizing world economy thanks to free trade – commodities could find a market everywhere – huge foreign investments – countries with trade deficit could obtain relief by discounting bills of exchange. After the war, it was no longer able to exercise this role: US unwilling to accept the role of the leader. We can see it from immigration policy, tariff policy and attitude toward international cooperation.

Long run consequences of the depression:

1. a growth in the role of government in trade (Keynesian revolution)
2. effort on the part of Latin-American countries to develop import- substituting industries
3. rise of extremist political movements on the left and right wing.

Rival Attempt at Reconstruction

US: when Roosevelt took office, the nation was in the worst crisis since the civil war: more than 15 million unemployed and banking system on the verge of collapse. In his campaign, he had called for a "New Deal" for his country: in 4 years of his first term the volume of legislation surpassed that of any previous administration. He covered every aspect of economy and society. One of the most famous enactments was the Industrial Recovery Act: he created a National Recovery Administration to supervise the preparation of the "codes of fair competition" for each industry by representative of the industry itself. It was similar to the wartime economic

administration and the Fascist system: system of private economic planning, with government supervision to protect the public interest and guarantee the right of labour to organize and bargain collectively; it was considered by the Supreme Court unconstitutional. The New Deal was not able to recover the economy: in 1941, still 6 million unemployed.
France: 60% of steel and 70% of coal had been located in the war-devastated area, also among the most important agricultural areas + half of the male population had been killed. Counting on German reparations, France had undertaken an extensive program of physical reconstruction: when reparations failed to arrive, they tried to solve the problem by occupying the Ruhr. In 1926, a coalition stabilized the franc (that had depreciated a lot) at about 1/5 of its pre-war value by undertaking increase in taxation. The solutions were satisfactory but alienated the renter class and the working classes: growth of extremism. The undervaluation of franc stimulated exports, thus leading to an inflow of gold which allowed France to better bear the depression (struck there only in 1931). In 1936 the Communists, Socialists and Radicals won the election with a coalition, the "Popular Front": they nationalized the bank and enacted reform measures affecting labour e.g. max 40 hours + compulsory arbitration of labour disputes and paid vacation for industrial workers: not successful.
Other countries: small industrialized countries, dependent on foreign trade, all suffered but to different degrees. In 1920 when GB and France returned to the GS, many small countries followed. Their CB, instead of maintaining reserves of gold with which to redeem their national currencies, they maintained deposits with the CB of the larger countries (same purpose(?). After GB's departure from GS, they aligned to pound sterling ("Sterling bloc": Commonwealth, Scandinavia, Middle-East, Portugal, and Spain). When US devalued dollar, Latin America and Canada went to dollar standard. The gold bloc included Switzerland, Belgium, France and Netherlands.: in the Tripartite Monetary Agreement of 1936 GB, France and US undertook to stabilize exchange rates among respective currencies to avoid competitive devaluations.
Italy: Mussolini came to office legally in 1922 (employed Gentile to rationalize fascism): the state was the embodiment of the human spirit. Distinctive form of economic organization: the "corporate state": in principle, an antithesis of both socialism and capitalism. Although it permitted private property, the interest of owners and workers were subordinated to the state. All industries organized in 12 corporations, corresponding to trade associations rather than business corporations. The different interests were represented by party functionaries holding key positions. They acted mainly as trade associations whose aim was to increase the income of businessmen at the expense of workers and consumers. At the fascists sought to counter the depression, they created large state-supported enterprises in key sectors that were more concerned with maintaining high employment than increasing efficiency.
Germany: Nazi Germany was the first major industrial nation to achieve complete recovery. In 1929, it had more jobs than workers to fill them (mainly due to rearmament). In the process Germany developed the first modern highway (autobahn) and strengthened its industries: trade unions were suppressed and replaced by compulsory membership in National Labour Front in 1933. They abolished collective bargaining between workers and employers, substituting board of labour "trustees" with full power to determine wages. They didn't resort (# Russia) to the nationalization of economy. One of the main objectives was self-sufficiency (Autarkie), especially in the event of a war:

1. scientists were directed to develop new synthetic commodities
2. exchange control to prevent the flight of capital
3. trade agreements with Balkans providing for the barter of goods, thus avoiding the use of gold or scarce foreign currencies. This policy tied Eastern Europe to Germany.

Spain: having avoided WWI, it escaped most of the EU problems. Its industry benefited from the wartime demand but Spain was still an agrarian country with low productivity. Depression was a factor in the demise of monarchy and establishment of the Second Republic in 1931 (but climate scarcely favourable to republican reforms): in 1936 Franco began a civil war which ended with the overthrow of the republic and the institution of an autarkic regime.

The Russian Revolutions and the Soviet Union

Imperial Russia entered the WWI with the expectation of a quick victory. By the beginning of 1917 the economy was in shambles: in March strikes and riots broke out in Petrograd, some soldiers gave arms to the demonstrators: they were joined by the representatives of the socialist parties and formed the Soviet of Workers and Soldiers' Deputies. One the same day a committee of the Duma decided to form a provisional government (collection of aristocrats, intellectuals and only one socialist, Kerensky). The new regime announced that it

would undertake social reforms and land redistribution and continue the war with Germany. Then, Germany sent Lenin (leader of the Bolshevik part of Socialists) to Russia hoping that he would bring disorders. He quickly established dominance in the Soviet and carried on a campaign against the Provisional government. When they offered no resistance to the occupation of the Winter Palace from the Red Guards, Lenin formed a new government, called the Council of People' Commissars. After the October Revolution, in 1918 Russia ended the war with Germany (Brest-Litovsk Treaty), but still faced opposition by the White Armies. In 1920, it went to war with the newly formed Poland. In order to survive the Bolsheviks introduced "War Communism": nationalization of economy, confiscation and distribution of land, a new legal system and introduction of a single-party government, the "dictatorship of proletariat". When the Social Revolutionaries won the elections, he sent troops to dissolve the assembly. In 1922 Lenin created a federation of countries, Union of Socialist Soviet Republics (USSR), including Siberia, Ukraine, White Russia, Transcaucasia: the whole was controlled by a small group of men in Moscow. After the peace with Poland, the economy was in shambles. The policy of communism had caused industrial production to fall to less than 1/3 of 1913 level. The peasants refused to deliver their produce at such low prices.: Lenin was convinced to adopt a new policy.
New Economic Policy (NEP): a special tax in kind of agricultural produce replaced compulsory requisitions, allowing peasants to sell surplus. Small scale-industries returned private, only the so called "commanding heights of the economy" remained in the hands of the state: agricultural and industrial output increased.
In 1924 Lenin died: two possible heirs.

1. Trotsky: had served as a war commissar and claimed the credit for defeating the White armies but his late conversion to the Bolshevik cause (1917) made him suspect. He advocated world revolution.
2. Stalin: faithful adherent of Lenin and Secretary of the central committee of the party, very influential. He advocated "socialism in one country". By 1928, after assassinating Trotsky, he completely controlled the party and country. His program implied a massive built-up of Russian industry to make the country both self- sufficient and powerful. In 1919, he launched a "five years' plan": he set up a State Planning Commission who had complete control over the economy, disregarding demand, preferences etc. Trade unions were used to preserve labour discipline, prevent strikes and sabotage. Peasants bitterly resisted collectivization by burning crops and slaughtering their livestock. Sometimes Stalin allowed the formation of cooperative farms, on which most of the land was tilled in common; each household was allowed to keep a small plot for themselves. The objectives were declared to have been achieved and another five-year plan (1933) was launched, this time with a focus on consumer goods. Actually, output had fallen and millions died of starvation. In 1936-37 there was a Great Purge: thousands of individuals from workers to military and party leaders were executed without trial from alleged crimes (sabotage, espionage). In 1938, the Third 5-years plan was launched.

Economic Aspect of World War II

The WWII was by far the most massive and destructive of all wars:

1. extension and intensification of previous features: increasing reliance on science as the basis of military technology
2. extraordinary degree of regimentation and planning of economy and society
3. refined use of propaganda. It was a truly global war + war of movement # war of position.: aerial warfare + naval operations + science-based technology became crucial. The economic and industrial capacity of belligerents acquired new importance.

The pecuniary cost is estimated at 1 trillion dollars only for direct military expenditure. War related deaths are about 15 million in Western EU: 6 million military and 8 million civilians. For Russia more than 15 died. Property damage was far more extensive than in WWI, largely because of aerial bombardments: even if US Air Forced pledges itself on strategic bombing, the post-war Strategic Bombing Survey of Germany showed that only 10% of industrial plants had been permanently destroyed, while more than 40% of civilian dwellings had been knocked out. Transportation facilities, especially railways and ports and docks were tempting targets.
Industrial and economic output in 1945 was half or less than it had been in 1938. The institutional framework of the economy had been severely damaged. In addition to property damage and human casualties, millions of people had been uprooted and separated from their families and most faced starvation.

The institutional responses to disintegration of the world economy

International relations

The league of nations, created by the treaty of Versailles in 1919 to guarantee world peace and prosperity. Failure of US senate to ratify it and of the US to join the league along with the weak structure, condemned in to failure. It proved to be powerless in dealing with important economic issues. United Nations – successor.

The role of government

Major institutional change affecting all nations. In the 20th century is the greatly enlarged role of government in the economy. Reasons:

- Financial necessities of two world wars
- Other considerations of national defense

In the Soviet Union and other Soviet-style economies, government assumed total responsibility for the economy through a system of comprehensive economic planning.
Most countries adopted some form of economic planning, not as comprehensive as Soviet Union though. Its called "Mixed Economies".
Other reasons for the growth of government:

- Directly productive activities carried on behalf of government: state-owned industries became more common, sometimes as a result of the failure of private enterprise (railways in US) and also because of ideological commitment of the ruling political party.
- Transfer payments, redistribution of income by means of taxation and expenditure: accident insurance for workers, limited pension systems. (after WWII social security systems and other transfer payments were extended even more in most democratic countries, which have become known as "Welfare states").

The forms of enterprise

Spread of corporate form of enterprise not only in large-scale capital intensive industries, chain stores.; appearance of corporate conglomerate: it was all pioneered in US in the latter part of 19th century and spread rapidly across Europe. Reason: corporate organization enabled enterprise to compete successfully with another American phenomenon, the multinational firm.

Organized labor

At the beginning of 20th century the rights of workers to organize and bargain collectively were recognized in most western countries. By 1940 as a result of New Deal legislation favorable to organized labor, proportion of union members had grown.
Trends in union membership in Western Europe and US were similar. The major difference is that European trade unions are much more closely identified with specific political parties than in US.
The Nazis abolished not only political parties but also trade unions; all workers had to become members of the labor front to ensure labor discipline. Similar developments took place in Italy, Soviet Union and other totalitarian countries.

Allen, R. C.; Global Economic History, Chapter 1, "The Great Divergence"

Overview

Main topic: Why did the Industrial Revolution happen in Britain, in the eighteenth century?
Theories talk about:

- Technological change as the immediate cause of growth: steam engine, the cotton spinning machinery, and the manufacture of iron with coal and coke
- invention on this scale was unprecedented, and it inaugurated an era of industrial expansion and further technological innovation that changed the world
- Consequences of technology: rapid urbanization, capital accumulation, increases in agricultural productivity, the growth of income

Allen's explanation two parts:

2) Expansion of the early modern economy (1500-1750): unique structure of wages and prices in 18th century Britain.
    1. Wages remarkably high
    2. Energy remarkably cheap

3) Industrial revolution: Steam engine, the water frame, the spinning jenny and the coke blast furnace increased the use of coal and capital relative to labor.
   1. adopted in Britain because labor was expensive and coal was cheap, and they were not used elsewhere because wages were low and energy dear
   2. Invention was governed by the same considerations
   ➔ The Industrial Revolution, in short, was invented in Britain in the eighteenth century because it paid to invent it there, while it would not have been profitable in other times and places.

End of industrial revolution (1830/1850): railroad and steamship and then novel manufactures like Bessemer steel appeared on the scene.

- The cotton mill and the coke blast furnace were invented in Britain because they saved inputs that were scarce in Britain and increased the use of inputs that were abundant and cheap. For that reason, these techniques were not immediately adopted on the continent or anywhere else in the world
- Landes (1969): period up to 1850 = "continental emulation" → French, Germans and Belgians were only beginning to use British techniques and pre-industrial practices remained dominant

Closing gap (1850-1873): modern technology displaced traditional methods, and European industry could compete on an equal footing with British

- British engineers studied the steam engine and the blast furnace and improved them in order to lower costs → profitable to use new technologies everywhere.
- By the middle of the nineteenth century, the genius of British engineering had improved the technologies, thereby eliminating the competitive advantage they had given Britain.
- Global diffusion marked the end of the Industrial Revolution

Explaining the Industrial Revolution

Social structure

Marx: stress the importance of social structure
Society evolved through stages:

Markets are necessary to guide economic activity, and the bulk of the population must lose its medieval property rights so that it is willing to move to the cities and for agricultural productivity to grow.
Since Marx, new discoveries about medieval world:

- Studies of grain prices show that markets were wide- spread and as efficient as they were in the eighteenth century
- Economy of cities and towns was vibrant and commercial
- Cropping patterns were responsive to environmental and commercial opportunities, and productivity was much higher than once believed

BUT:

- For most of the middle ages, a majority of the English were serfs and held land in villeinage (could only litigate in the manorial courts presided over by their lords)
- no secure public protection against violence by their lords
- subject to a variety of assessments that reduced economic incentives
- Labor mobility was inhibited, since a serf could not leave the estate without permission
- Tallage: assessment initially to random the lord, but convenient and elastic revenue source that became routine.

➔ The emergence of capitalist institutions was a necessary, if not a sufficient, condition for modern economic growth.

Constitution and property rights

Liberals → favor "minimal government" → parliamentary checks on the executive, the security of property rights, the flexibility of the legal system.
Glorious Revolution of 1688: consolidated parliamentary ascendancy, limited royal prerogatives and secured private property.

→ favorable climate for investment → Industrial revolution
Critiques: - No banking and interest structural break → ↑investments were not manifest in finance

- UK property rights were at least as secure in France (almost too secure: some projects only undertaken after French Revolution → power to national assembly)
- Taxes were higher in Britain than across the Channel

The Scientific Revolution (17th Century)

- Started in Italy with Galileo and ended in England with Newton
- 'Naturalists' could benefit the economy by inventing new products and solving production problems - Boyle (1671): possibility of inventing engines to mechanize production
- While a lot of historian don't believe it, scientific discoveries underpinned important technology in the Industrial Revolution

Critique:

- Scientific discoveries that mattered for the Industrial Revolution were made before 1700 and not after 1760.
- Most important: atmospheric pressure related (weight, possibility to condense it to form a vacuum)
    - Culmination: Thomas Savery's steam pump invented in 1698 and Thomas Newcomen's steam engine of 1712.
- Discoveries of seventeenth-century physics were necessary conditions for the invention of the steam engine, but they were not sufficient
- Turning the scientific knowledge into working technology was expensive → worthwhile investment only in Britain where high demand for drainage thanks to coal.

Superior rationality?

Max Weber:

- Modern people are characterized by their superior rationality, The Protestant Ethic and the Spirit of Capitalism (1904–5) → Reformation let to Western rationality → Great Divergence
- Low agricultural productivity in less developed countries because of farmers' irrationality.
- Response to changes in agricultural prices and their willingness to adopt new techniques → same rationality level in developed and non countries.

Science as culture

Max Weber:

- A scientific attitude had to replace superstition for technological progress to occur
- Pre-modern people attributed events in the natural world to the interventions of supernatural beings
- Influence of spirituality stood in the way of the empirical, scientific outlook necessary for technological and social progress.
- Need for "the disenchantment of the world" → world as a material realm → focus on discovering its empirical regularities and natural laws → Technological development

Why did the West give up superstition?
Jacob (1997): Scientific Revolution transformed popular culture. → widespread interest in science → change of human nature.

- New person: generally a male entrepreneur who approached the productive process mechanically → mechanization of production
- Britain's lead over France was due to 'the marked differences in the scientific cultures found in Britain in comparison to France or the Netherlands'.

Why? Brits first smelted iron with coke, invented the steam engine, and discovered how to spin with machines.
Mokyr: Enlightenment connects the Scientific to Industrial Revolution. → "Industrial Enlightenment":

- application of the scientific and experimental methods to the study of technology
- belief in an orderly universe governed by natural laws that could be apprehended by the scientific method
- expectation that the scientific study of the natural world and technology would improve human life
- Industrial Enlightenment was more fully realized in Britain than on the continent.

- Easier and more fruitful communication between savants and fabricants
- Britain was more abundantly supplied with skilled mechanical artisans than France, so it was easier for engineers to realize their inventions

Scientific worldview influenced the second and third tiers of inventors critical for the elaborating and applying breakthrough technologies.
Jacob (1997): even factory operatives had to become Newtonians → mechanical knowledge needed for invention and effective exploitation of mechanical devices.

- Knowledge spread though provincial 'scientific societies, academies, Masonic lodges, coffee house lectures' etc.

Between 1500-1800: two gradual but important changes in popular attitudes → secularization and politicization.

- Growing concern of creating a better life in this world
- Pursue of Wealth and status as sign of salvation (Weber)

Culture and the economy: cause or effect?
Three cultural evolutions thanks to economic changes:

- spread of literacy and numeracy (with urbanization) : cities, rural industry and commerce required more skills + printing reduced price of books → more reading for pleasure. Arithmetic studied for its utility (ship commerce)
- Emergence of consumerism (for work)
- Postponement or deferral of marriages when it was economically convenient

→ big steps in the emergence of modern men and women.
18th century level of human capital is an important reason why Industrial Revolution didn't happen before.

Consumerism and hard work

- evolution of the economy also increased the incentive to work hard → availability of new consumer goods → people want income.

Mathias and De Vries: 'industrious revolution' → Steuart's "Men are […] slaves of their own wants"

- New consumerism: necessary but not sufficient to explain economic progress. → pursuit of income to buy novel consumer goods (often coming from abroad thanks to globalization) = cultural basis for industrial revolution.

Marriage and Children

Northwestern Europe developed a distinctive pattern of marriage that contributed to high living standards and a broader sphere of personal independence.
Hajnal (1965): line from St Petersburg to Trieste → on the East and South all women married, most in their teens. On the West and North 1/5 never married and most who did waited until their twenties. S-E pattern: high fertility and low living standards
N-W → European marriage pattern: low fertility and high standard of living → facilitates savings and economic growth.
Malthus: standard of living of most people was higher in England than in China because the English deferred marriage when incomes were low.
Why EMP?

- high wage economy after the black death.
- strong demand for labor → young women could support themselves apart from their parents and control their lives and marriages

The emergence of modern culture

- Culture possibly became more secular and more concerned with economic success
- Chase after new products
- Rise of modern attitudes

An economic approach to the Industrial Revolution

- Focus on demand for new technologies
- Britain's high wages and cheap energy increased the demand for technology by giving British businesses an exceptional incentive to invent techniques that substituted capital and energy for labor.
- Population at large was better placed to buy education and training than their counterparts

- High rates of literacy and numeracy contributed to invention and innovation

Habakkuk's (1962): American inventions had a labor-saving bias that accelerated the growth in output per worker→ attributed high wages → economize on labor
Abundance of land and natural resources → high wages

The transformation of the European economy, 1500–1750

Middle-Age:
- European manufacturing and commercial center was the Mediterranean (+Belgium)
- Most of British population lived in countryside → agriculture. Low productivity and income.

16th - 18th century:
- By the 18th, the economic center of gravity shifted to the North Sea.
- In the 16th and 17th century: Dutch Republic pulled ahead
- By the 17th century: British incomes pushed past France and the Habsburg Empire.
- By the 18th century: Britain overtook the Dutch

→ Reconfiguration of European economy was precipitated by increase in international Trade –
- 16th-17th: shift in location of cloth production → North Sea
- 17th-18th: intercontinental trade expansion → English and Dutch established world empires (manufacturing and commerce)
- Spanish → acquired Latin American Silver → inflation → uncompetitive production

1500: share of agriculture was for many about 75% (similar to the one of less developed in 20th century)
1500-1800: agriculture shares decreased. (England biggest drop, Spain least). Poland and England had biggest urban revolution.
Note: because of data availability countries are defined in terms of modern economy, but artificial since many of the countries were fragmented.

1500: Europe was a backward economy (3/4 of people in agriculture in England, Austria-Hungary, Germany, France and Poland). Small cities (<10% of population): 50000 people in London. Limited nonagricultural employment. Leading economies: Italy, Spain and Belgium (with a 19-30% urban fraction) → Agricultural revolution in England → rise in both urban and non-rural → Protoindustrialization
- In many parts of Europe, manufacturing industries developed in the countryside (production in workshops or at home)
- Merchants signed up rural residents as piece rate workers, brought them raw materials and collected the finished products → sold to other merchants who shipped them to the rest of Europe.
- Regions were intensely specialized (Woolen Cloth: Norwich and West Riding Yorkshire, metal buttons fitting and implements: Birmingham, stockings: Leicestershire, blankets: Oxford.

- The expansion of rural industry in northwestern Europe was associated with the emergence of new economic leaders because it came at the expense of established producers
- Dutch and English's clothes became the "new draperies"
- England successful: Black Death → fall in population → reversion of much good farmland to pasture → feed supply for sheep → their wool was longer and better suited
- Refugees from the continent brought skills that improved the quality and variety of English products

Early Modern England:
- Improvement of agriculture → tax countryside income and spent it on urban and naval areas → Rapid urbanization
- Some of the urban growth was due to manufacturing; London center of English publishing and furniture-making
- Most of the growth of cities was due to trade and commerce (intra-European trade was the basis of London's expansion)

16th century: Portugal most successful European Power in South Asia: spice trade and colonies.
Early 17th: Netherlands took "spice islands" from Portugal establishing Indonesian Empire → Amsterdam

= wholesaling center for tropical produce. Trade with India → + tea + cotton

Early modern Low Countries:
- Second most successful economy
- Less than 1/2 of population was engaged in agriculture and urban and non-agricultural shares were high - Flanders (Belgium) had been highly urbanized and a leading manufacturing center in the middle ages.

Dutch Economy:
- Most advanced in the 17th: agricultural revolution → growth of urban and manufacturing economies.
- New draperies, manufacture of light cloth
- Manufacturing and rural industry were also formidable - English only overtook Dutch in late 18th

Rest of continental Europe (North of Alps and Pyrenees):
- France and Austria were major military powers
- Poland was united in 1500 but dismembered in the next three centuries
- Germany remained divided into many states throughout the period
- Prussia: international actor
- Modest development in early modern period
- Agriculture shares dropped to 60% (similar to Italy and Spain in 1500)
- Rise in proto-industry share
- Important rural manufacturing industries
- Urban shares scarcely increased → sets them a part from England and Low Countries.
- For a time, the French had some valuable colonies, but they were lost in the Seven Years War and the Revolution.

Spain and Italy:
- Absence of structural change between 1500 and 1800.
- No movement in the end of middle-age lager urban and small agricultural shares.
- Absence of growth in rural manufacturing → no proto-industrialization
- Italy no foreign possession, Spain yes but only brought inflation.

From early modern expansion to Industrial Revolution
- Industrial revolution = result of long process of social and economic evolution running back to the late middle ages.
- Commercial and imperial expansion of Britain was a fundamental feature of this evolution, but not its totality.

- Black Death: population fall increased labor mobility by generating many vacant farms, and that mobility undermined serfdom.
- High wage economy: benefits of high consumption were not confined to people: sheep ate better as well → better wool → "new draperies" → exports
- London growth: rapid growth in the city's population and the rise of the coal industry to provide the capital with fuel.
- Trade boom: extended to the Americas and Asia in the 17th and 18th centuries by England's mercantilist expansion of trade and acquisition of colonies.
- Larger cities: advances in agricultural productivity, division of labor, greater efficiency and higher wages.

The expansion of the early modern economy was underpinned by favorable institutional and cultural developments.
- End of serfdom + establishment of a stable legal environment → capitalist enterprise → growth
- Gradual decline in superstition and medieval religion → rise of a scientific attitude → research for practical solutions
- Demand for trade and drop in book prices → spread of numeracy and literacy.
- New products (from abroad) → ↑ aspiration to consume → ↑ incentive to work and earn higher incomes

Upshot of the commercial expansion: unique wage and price structure in England in the 18th High wages and cheap energy → incentives to invent technologies that substituted capital and coal for labor → inventions → Industrial revolution

Evolution of law and culture → favorable supply response → international expansion → Industrial revolution.

Acemoglu, Johnson, and Robinson; "Institutions as a Fundamental Cause of Long-run Growth", Chapter 6, pp. 385-472

Institutions are "the rules of the game in a society or more formally are the humanly devised constrains that shape human interaction" (North, 1990). Of primary importance are economic institutions because they influence the structure of economic activities in society (incentives in exchange between humans). Moreover, they help allocate resources efficiently and determine property rights. Economic institutions are endogenous as they are at least partly determined by (a segment of) society.
The argument of the role of institutions can be summarized as:

- the major differences across countries are determined by institutions (although cultural and geographical factors matter) and they don't determinate only aggregate economic growth potential of the economy but also an array of economic outcomes, such as the future distribution of resources;

$$\text{economic institutions}_t \begin{cases} \text{economic performance}_t \\ \text{distribution of resources}_{t+1} \end{cases}$$

- economic institutions are endogenous, they are determined as collective choices of the society (of groups within the society, hence a conflict of interest) defined by the actual political power

$$\text{political power}_t \longrightarrow \text{economic institutions}_t$$

- individuals who have political power cannot commit not to use it in their best interest and this creates inseparability between efficiency and distribution;
- political power can be distinguished into:
  - De jure (institutional), which is originated by political institutions

$$\text{political institutions}_t \longrightarrow \text{de jure political power}_t$$

  - De facto, which is originated from group's allocation of resources (and moreover, their use and misuse of them and their option of using force against other groups);

$$\text{distribution of resources}_t \longrightarrow \text{de facto political power}_t$$

- Also, political institutions are endogenous and therefore evolve (through slow changes), determined by political power (both de jure and de facto).

$$\text{political power}_t \longrightarrow \text{political institutions}_{t+1}$$

This can be represented as:

$$\left.\begin{array}{l} \text{political institutions}_t \\ \text{distribution of resources}_t \end{array}\right\} \Longrightarrow \left\{\begin{array}{l} \text{de jure political power}_t \\ \& \\ \text{de facto political power}_t \end{array}\right\} \Longrightarrow \left\{\begin{array}{l} \text{economic institutions}_t \\ \text{political institutions}_{t+1} \end{array}\right\} \Longrightarrow \left\{\begin{array}{l} \text{economic performance}_t \\ \& \\ \text{distribution of resources}_{t+1} \end{array}\right.$$

Fundamental causes of income differences

We can outline three main causes for cross country differences:

1) Economic institutions: differences in economic institutions are based on the ways human decide to organize themselves in a society, whether they prosper in it. This idea goes back to Adam Smith and his discussion on mercantilism and the role of markets: societies are economically successful when they have good economic institutions and they're cause of prosperity;
2) Geography, climate and ecology determine both the preference and the opportunity set of individual economic agents in different societies
    a. Climate may be an important determinant of work effort;
    b. Geography may determine the technology available to a society, especially in agriculture;
    c. Climate may also define the "disease burden" on a population;
3) Culture, viewed as a key determinant of the values, preferences and beliefs of individuals and societies and, consequently, of differences among them that shape economic performances. An example of this is the Protestant reformation and its link to industrialization: with the rise of Calvinism a precise set of ideas – like the exaltation of work and the good in not wasting time and saving – found place within western societies and formed a basis for capitalism.

Institutions matter

An interesting example of how determinant institutions could be it's the "Korean experiment", which comes close to a natural experiment and has a series of similarities: geography (border established strongly after the II W.W.), culture and pre-existing institutions, although current institutions are totally different (communist/capitalist heritage after the forties). As per today, South Korea under the American tutelage has a higher GDP per capita level compared to North Korea.

Reversal of fortune

Another case that can be considered is the fate of the former European colonies: they shared the same colonial past but had divergent outcomes. The regions that were relatively more developed and richer before colonization, with respect to other colonies, are nowadays the less developed. In this analysis:

- geography doesn't matter since tropical areas were initially more developed than temperate areas;
- culture also of little significance because the same pattern can be found across colonies of the same European nations.

This can be explained by the different inherited institutions that were set up by the colonial powers: "extractive" institution for resource rich and density populated (labor to exploit) colonies and "inclusive" institution for settler colonies (place where people had to be motivated to transfer, leaving their motherland). To maximize gains the colonies used two different approaches:

- extracting existing resources in rich countries (more profitable that developing them);
- new settler populations developed instead economic resources and therefore institutions to protect them.

Theory of institutions

Actual political power is the joint outcome of both de facto and de jure power. There are seven points that outline a theory for political institution:

1. individuals have preferences regarding economic institutions because of the allocation of resources that these institutions induce;
2. preferences typically do not agree because efficiency and distribution are inseparable;
3. problem of commitment, since there's no third party to enforce the decision of the State;
4. the equilibrium structure of economic institutions will be determined by who can create and sustain economic institutions that benefit themselves;
5. political power has two forms that can influence themselves;
6. the distribution of de facto power depends largely by the distribution of resources;
7. political institutions are also endogenous.

The relationship between institutions can be summed up by the graph:

Inclusive political institutions	Inclusive economic institutions
Extractive political institutions	Extractive economic institutions

The theory in action

We can consider two more examples that further demonstrate the theory of institutions: the rise of constitutional monarchy in Europe and the rise of mass democracy in Britain.

The rise of constitutional monarchy

In the Medieval period, most European nations were governed by hereditary monarchies. However, as the feudal system started to collapse, various political groups tried to reduce the autocratic power of monarchy in England, the process began in 1215 when King John was forced to sign the "Magna Carta".
In other countries, parliaments were also erected to discuss taxation or warfare but their power was limited (an example of the opposite trend was France, with an absolute monarchy that lasted until the revolution). In England from the Tudor monarchies (ex. Henry VIII and Elizabeth I) and with the first Stuarts, the monarchs tried to establish an absolute power but were mainly blocked by the parliament: the constitutional outcome was settled after the glorious Revolution in 1688. The Netherlands faced a similar development after the won of Independence war in 1648. Both England and the Netherlands were developing limited constitutional rule; while Spain, Portugal and France were going in the opposite direction.
What all these nations had in common was the Atlantic Trade, i.e. overseas trade and colonial activity unleashed by the discovery of the Americas and the rounding of the Cape of Good Hope. However, they vastly differed in the specifics of trade (implying also vast differences in corporate organization, political institution and subsequent economic growth):

- in England and the Netherlands trade was brought on by individuals and small partnerships, there was quite a free entry into the merchant class;
- in Portugal and Spain, instead, a trading crown monopoly was established with the aim of controlling directly the inflow of silver and gold into the State accounts.

The source of differences in the organization of trade reflected the different political institution of these countries: while in Spain, Portugal and France trading enriched the monarchs, in England and the Netherlands it helped the merchant class to emerge. It's no coincidence that the Civil War and the Glorious Revolution in England coincided with the great expansion of English mercantile groups into the Atlantic. In conclusion, we can say that the distribution of economic resources changed significantly during the 16th century because of the new economic opportunities presented by the rise of the Atlantic trade, and these changes were crucially influenced by the existing economic institutions. Furthermore, the change in the balance of political power (due to the gain of the facto power by the mercantile class) led to the changes in political institutions through the English Civil War, the Glorious Revolution and the Dutch Revolt.

The rise of electoral democracy in Britain

In the early 19th century, European countries were run by small elites: the franchise was highly restricted to males with relatively large amounts of asset income or wealth. However, as the industrial revolution progressed, the political monopoly was challenged by the disenfranchised, who engaged in collective action to force political change. The elites responded to this in the three ways:

1) using the military to repress the opposition (e.g. revolutions of 1848);
2) making economic concession to buy the opponents off (e.g. welfare state in Germany by Bismarck);
3) expanding the franchise if the two above proved ineffective: this created the precedents for modern democracy.

In England, the path to the First Reform Act (1832) was opened by a series of episodes of rioting, which happened in the decade before (when the Industrial Revolution was well under way), like the luddite riots and others. The motivation behind the reform was in major part to avoid disturbances, in part catalyzed the July 1830 revolution in Paris and in part maneuvered by the new middle class which was entirely excluded from political

power. From then on, social disorder functioned as spark to push onwards the inclusion in politics: with the Reform Acts (1867-1884), the 60% of adult males were enfranchised.
Economic institutions also began to change: liberal and conservative governments introduced an amount of labor market legislation, in addition to health and unemployment insurance, government financed pensions, commitment to redistributive taxation, etc. Meanwhile, the education system was opened to masses (before it was only for the elites) with the Education Act of 1870 (and subsequently made free in 1891).
Mass democracy, to conclude, emerged from economic and social changes connected with industrialization (e.g. rising inequality) and urbanization which increased the de facto power of the disenfranchised. In exchange they demanded political rights, in particular: changes in the institutions which would allocate future political power to them. These changes were in many ways the direct cause of the changes in economic institutions. Whether increases in the de facto power translated into democracy depends on several factors, in particular: how difficult and costly it was for the elites to use repression to counter the increase in power of the masses and how costly the prospect of democracy was.

Add on: institutions

There are different types of institutions.

1) Inclusive:

- Bigger, more decentralized;
- Vibrant civil society with lots of permanent and strong NGOs higher proportion of public spending on education and welfare;
- Economic opportunities and gains are redistributed relatively equitably Robin Hood Paradox: redistribution least present when most needed;
- Inclusive political institutions create incentives, reward innovation and allow participation in economic opportunities creating a virtuous circle:
    - Economic success thus created in sustained by governments accountable and responsive to citizens,
    - Strong cheeks on the ability of elutes to usurp political power by arbitrarily intervening in the economy,
    - If wealth generated is shared broadly, citizens are more inclined to spend on public goods, which in turn increase inclusivity.

2) Extractive:

- Smaller, centralized governments dominated by elite coalitions;
- Predominance of social relationships organized along personal lines lack of social affinity as developing countries tend to be socially and ethically more heterogeneous;
- Privileges, social hierarchies, laws are enforced unequally small preparation of public spending on transfers as the elites are not compelled to redistribute their gains;
- Extractive political institutions induce extractive economic institutions that limit economic participation;
- Extractive institutions undermine the rule of law – additionally extractive institutions are likely to persist in economies where both wealth and political power is concentrated in the hands of few, who are the least strongly related, if not identical groups – because elites could be overthrown by other elites interested in maintaining extractive institutions.

Moreover, economic historians define institution as efficient if the net gain from institutional change is positive (e.g. abolition of slavery). Institutions can improve efficiency by:

- lowering transactions costs (market efficiency);
- helping to spread risks and enforcing contracts.

READINGS FOR THE SECOND PARTIAL

Mokyr, J.; "The European Enlightenment, the Industrial Revolution, and Modern Economic Growth," Max Weber Lecture Series

Two fundamental assumptions are taken for granted about the Great Divergence:

2) Modern economic growth started in western Europe (i.e. selected economies in the northern Atlantic region);
3) Britain was a leader in this process and continental Europe a follower (albeit a rather quick one).

The assumption debated is that countries in 1914 were part of the Convergence Club were also subject to the European Enlightenment. The Enlightenment affected the economy through two mechanisms:

1) The attitude towards technology and the role it should play in human affairs;
2) Institutions and the degree to which rent seeking and redistribution should be tolerated.

The Enlightenment changed the outlook of key persons on their natural environment, and their inventions and discoveries turned what might have become another technological example of development into a huge change starter in economic growth. The importance of the Enlightenment to the subsequent economic development of western Europe is consistent with both the temporal and geographical pattern of growth but such correlation alone doesn't constitute proof of the link between the Enlightenment and the Industrial Revolution.

The industrial revolution and modern growth

The Industrial Revolution (in its classical definition: a counterfactual technological/technical evolution that emerged between 1750 and 1800) did not suffice to generate sustained economic growth. The change that went with it was the approach to this technological evolution. Before 1750 many path breaking inventions were made and engineering existed well before then, but prior to the Industrial Revolution all the techniques in use were supported by very narrow epistemic bases.
This lack doesn't mean that improvement was not possible (it was, especially through trial and error) but it made much more slow and costly the subsequent adaptation and development so that economic growth is not sustainable (because if I don't understand how something works, how can I effectively ameliorate that?). Yet scholars found it difficult to link the main technological breakthroughs of the Industrial Revolution to the scientific discoveries of the time. The solution to this can be divided into:

1) Timing: while the first advances of the Industrial Revolution (in the period between 1760 and 1800) were weakly based on science, in the subsequent momentum they increasingly became to depend on the better understanding of the propositional knowledge underlying the inventions;
2) Epistemic base of inventions doesn't only include a modern definition of science but a broader definition of knowledge including simply catalogues of phenomena and irregularities that could be relied upon even if the underlying processes were not quite understood.

Growth was possible through capital accumulation, increasing trade, freer markets, etc. but all of these would eventually run into diminishing returns: is technology that remains at the foundation of modern economic growth. The fundamental assumption of the Enlightenment, then, was that the growth of useful knowledge would bring prosperity: the expansion of useful knowledge would solve technological problems and that the dissemination of knowledge to more and more people would attain substantial efficiency gains.
Not all was abstract science (e.g. Laplace and Lavoisier's findings), but it was clear that growth had to be carried out collectively through a "division of labor" in which specialization was carried out at levels far higher than before. Over the 18th – 19th century the interaction between propositional ("what") and prescriptive ("how") knowledge became much tighter: it's this phenomenon that prevented the fallout of the Industrial Revolution and enabled it to become the base point of modern growth.

The enlightenment and technological progress

The Enlightenment had the assumption that society was improvable and that the process by how this could be attained can be summed up into four headings:

1) Agenda the "Baconian program" ("produce innovations of which nature unaided is not deemed capable" – Zagarin, 1998) served as the key agenda of researchers at the time. The already stated idea was that knowledge was supposed to be useful and society was improvable by it. Supposedly, it had to help in solving practical problems and to satisfy human curiosity. Consequently, many 18th century scholars known for their contributions used their insight to attack problems of production even though the connection between the discoveries to science is not always apparent. Description and organization mattered as much as everything else, as Bacon had argued: many investigations of the century followed the "three Cs" rule (counting, cataloguing, classifying). In this way, information recorded couldn't be lost and could be passed on;
2) Capabilities the scientific revolution advanced in part because of the existence of new tools – such as the telescope, the barometer and the air pump – that allowed new experiments and observations possible. Another increased capability came from mathematics: advances in maths added new instruments – such as mathematical functions – useful in engineering, ballistics, navigation, etc.;
3) Selection innovative ideas were selected from the broader pools of ideas proposed to the people, which was a new concept introduced thanks to the Enlightenment. Knowledge and beliefs were regarded as contestable at every level and tolerance was raise to the level of principle (inquisition and other historical methods of censorship weren't present in the countries interested, or were in minor part). Free entry into the market of ideas and the absence of repression were a high priority on which all Enlightenment thinkers were united. In addition to this, two main check systems for ideas were introduced, on which the new scientific selection criteria were based:
    a. ex ante selection (i.e. peer review before wide publication of a theory), by which successful ideas at the time were a result of signaling of credible "reputation" as a scientist/researcher among equals,
    b. ex post selection, by which all theories available to the public were always further debatable;
4) Diffusion knowledge resembles a contemporary open source technology. Open science was key to the rapid changes in the market for ideas because its purpose was, exactly, to disseminate new concepts and offer them to the marketplace. Knowledge is a non-rival good and, in theory, the source can share it costlessly. In practical terms, costs of access were made up by costs of diffusion (higher than today). Those costs were, by all means, brought down drastically by the usage of paper, printing and the telegraph, as well as by improvements in transportation and postal services. Moreover, newly born encyclopedias were an important factor in spreading knowledge, as well as places such as coffee houses, societies and academies which sold culture freely to the public.

Intellectual property rights and the enlightenment

It was recognized that invention was costly and risky (because of time consumption and unpredictable returns on investments), and if that society wanted to generate a continuous stream of technical improvements, it had to make the activity that generated innovation financially attractive. Moreover, knowledge is a non-excludable good, therefore some might have wanted to keep secrecy on inventions as to avoid others exploiting them. The patent system was deemed a solution to these adverse factors because:

- it protected intellectual property rights by asking a fee for usage and recognizing paternity of an idea;
- it eliminated secrecy with the obligation to divulge the existence of the invention, once patented.

Mainsprings of Growth

Eichengreen (2007)

Although the Golden age was global there were great differences between Western Europe, Peripheral Europe, Eastern Europe and the United States. Taking Into account GDP Western Europe grew faster between 1950 and 1973 than it did over the whole 19th and 20th centuries; this trend was also followed by Peripheral Europe showing the tendency to catch-up with Western countries. In contrast, Eastern Europe had fallen behind and there was no tendency of catch-up with the rest of the continent. The US had living standards well above those of Western Europe at the beginning of the century but during the golden age Western Europe converged and closed the gap with the US.

Growth during the Golden Age was faster in Germany, Austria and Italy and slower in the UK, while In Peripheral Europe was greater In Greece, Spain and Portugal while dim In Ireland. In Easter Europe there was a little variation In the output per capita because of the strict regimentation of the Soviet bloc.

Probing Deeper

What deeper economic factors explain these patterns?

- Catch-up

  It refers to the rapid growth achieved by reversing the loss of output and destruction of capacity caused by WWII.

European countries that had experienced war disruption could grow fast by rebuilding the capital stock and expanding employment; for example, as early as 1947, industrial production across Europe exceeded 1938 levels (excluded Germany where economic disorganization was very present). Nor had capital stock fallen significantly from prewar levels.
There was still scope for catch-up: the gap relative to the steady-state levels was larger still, there was thus scope for rapid growth if Europe could now push its capital-labor ratio higher than the steady state trajectory. In addition, unemployment rates were lowered by putting the unemployed back to work after war devastation; to some extent the golden age was a simple return to normalcy. This normalcy though, could not be taken for granted as catch-up required higher than customary levels of investment, which happened in the '50s and '60s.

- Convergence

  Refers to the additional growth achieved by closing the gap with the US.

The US had assumed a significant lead in GDP by efficiently harnessing its endowments of resources and pioneering in mass production, allowing the development of multidivisional corporations capable to exploit economies of scale and cut down costs.
BY 1950 the gap in GDP per person between Europe and the US rose to unprecedented levels (after a narrowing in the 30s due to the American Depression) with the expansion of wartime capacity and further mechanization of production. Europe failing to negotiate a tariff truce in the 1920s and the growing of trade barriers in the 1930s, together with the difficulties in reconstructing international trade after WWII had limited the market for firms that wanted to invest in mass-production.

The overcoming of the obstacles to investment was crucial to overcome those of trade, and so the growth of intra- and extra- European trade was one of the features of the '50s and '60s in sharp contrast with the preceding decades. Trade integration removed market size as a constraint; In practice the GAAT, the OEEC and the Common Market were the most powerful motors for the expansion of Europe's trade.

Technological transfer proceeded apace; a growing share of progress in technology was science based and new communications technologies eased the dissemination of information. The internationalization of business deepened commercial contacts and Multinational corporations operated in multiple European countries. The US government, instead of stifling the dissemination of technology to maintain its competitive advantage, encouraged technology transfers to Europe by inviting European managers to visit US factories, in conjunction with the Marshall Plan. This was successful also because Europe possessed an adequate number of engineers and technicians, trained in a vocational system.

It is emphasized the growth of the labor force: in the 1950s western Europe's labour supply was augmented by immigration (e.g. German refugees from Central and Eastern Europe, French repatriates from Algeria, etc.) which loosened labour market constraints in the meantime, the industrial sector could grow rapidly by tapping the elastic labor supplies.
Furthermore, the innovation in agricultural technologies permitted the moving of labour from farms to cities without suppressing food supplies, and because productivity was higher in Industry than in agriculture, this reallocation permitted big growth.
These factors of growth began to dissolve: unemployment declined as the growth stopped idle labour, the Berlin wall closed off the east German market labor and factors subduing labor militancy faded giving rise to the

hot summer of 1968 demonstrations, causing declines In the share of profits In gross national product (GNP) and therefore decline In Investment.

Another explanation to the high Investment rates In the first postwar quarters Is **cyclical stability:** steady growth meant steady sales, growing the profitability and attractiveness of Investment.
The resurfacing of cyclical Instability subsequently has several explanations one of which is severity of shocks:

- End of 1970s: the end of the Bretton Woods system caused a shock to confidence and threat to the growth of trade. European countries sought to replace the system with other substitutes finally arriving to the European Monetary System.
- 1973: first oil shock resulting from price Increases by the OPEC which inaugurated a period of generalized commodity price inflation.

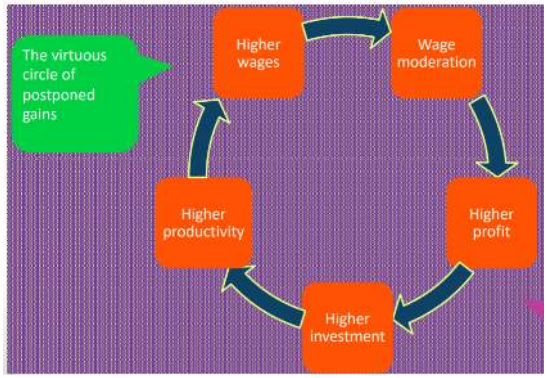
Institutional Foundations of the Golden Age

One explanation for the Golden Age is a set of Institutions well suited to growth.

Neocorporatist bargain

Was supported by postwar governments that asked unions to limit wage demands In order to make profits available for modernization and capacity expansion providing assurance that labour would share fully with Increases of Incoms. There were a series of Institutional bargains In order to ensure this cooperation:

1. parties could monitor one another's compliance; e.g. Germany's co-determination law, placing worker representatives In supervisory boards.
2. creation of rewards and penalties encouraging cooperation: e.g. Germany's tax breaks for Investments only for firms not paying dividends.



However the incentive to defect from agreement was still high since Investment could have positive externalities In other Industries, the solution was to coordinate wage bargains across sectors.

International Integration Institutions

Worked to solve other coordination problems undermining the recontruction of Europe's trade. UK's restoration of current-account convertibility drove the other European countries to work together and open their economies, moving together towards current-account convertibility.

- European Payments Union (EPU) members accepted OEEC's Code of Liberalization removing Import controls. This showed a commitment to liberalization.
  The US supported politically and financially this cooperation.
- The European Coal and Steel Community (ECSC) addressed problems In the heavy Industry.

The most enduring transitional Institution was the **European Union** Important In order to reconstruct the contitnent's natural pattern of trade and facilitated the adoption of export-oriented lines and mass-production methods, allowing competitive labour costs and strategies (economies of scale and scope, learning economies etc.)

Political Institutions

Postwar institution's reform made it harder for spliner groups to gain power so it saw a settlement of center-left or center-right parties.
The neocorporatist bargain was easier to sustain when there was little risk of future governments breaking the agreements.

Institutions and History

The Institutions that were developd In postwar Europe and that efficiently sustained growth were the result of Europe's history.

European Integration proponents traced their acendents back to diplomats and philospers such as Dubois and Bentham which proposed Institutions such as European assemblies and federation; this background was predisposed the postwar response.
Another critical factor was the role of the US and In particular the Truman Doctrine, encouraging Integration In order to create alliance against the Soviets.
In Europe, governments always:

- Encouraged the development of banks to meet the capital requirments for Industrialization
- Pioneered In social Insurance to reconcile workers to uncertainty of labor

This was done In order to prevent falling behind their Industrial rivals.
The corporatists compromises developd In small countires first such as Sweden; It gained ground In Germany, Italy and Spain as It gave the dictatorships great centralized control. Some of the Institutions such as the french farm lobby were not touched much by law.

The End of the Golden Age

With the end of the 1960s, output and productivity growth declined; these less satisfactory results were due to:

1. The rise of capital-labor ratio towards steady-state levels and the exhaustion of elastic labour supplies
2. Changes In conditions that made for a good fit between technologies and Institutions, making It harder to have a fast growth with the old system of tech transfer.

To sustain growth now there was the need to Invest In new unproven technologies making It harder to Identify high returns for funds.

Furthermore, In the late 1960s, the wage restraints that supported profitability began to weaken: the hot Summer of '68 saw strikes, and consequent wage Inflation, declining profits In national Income and consequently decrease In Investment after 1973; and with the collapse of Bretton-Woods, unions began to worry that Inflation would persist. These pressures led to a slowdown In growth.
European countries responded deepening the Involvement of the Governments In the economy, extending the welfare state and accelerating Integration. But these strategies Increased public spending and States Incurred In debt problems such as high taxes.

Industrializing Late

Amsden (2001)

After WWII some countries outside the North Atlantic rose to the ranks of world class competitors In a range of mid-technology industries, namely "the rest". It Included China, India, Indonesia, South Korea, Malaysia, Taiwan and Thailand In Asia and Argentina, Brazil, Chile and Mexico In Latin America.
Among backward countries, the rest differentiated themselves already in WWII in terms of manufacturing experience of many products such as silk and foodstuffs but also consumer goods and mid-tech.
These countries Industrialized without proper Innovations In an unprecedented case of pure learning.

Knowledge-based Assets

The transformation from assets based on primary products and unskilled labour to knowledge-based assets and skilled labour comes from attracting physical and human capital, going towards manufacturing.
Knowledge-based assets allow the owner to produce and distribute a product at a higher price (or lower cost) than the rest of the market. They are science-based or artisanal.
In the Heckscher-Ohlin-Samuelson theory on trade perfect knowledge (technology) Is a key assumption that renders firms equally productive therefore leaving an uncompetitive country without the desire to develop a know-how.

New Control Mechanism

To compensate for Its skill deficit, the rest rose by developing an Innovative control mechanism composed of a set of Institutions Imposing discipline In economic behavior based on reciprocity: firms receiving subsidies

allocated to create profitability were subjected to monitoring of performance, that needed to be redistributive In nature and results-oriented. The control mechanism Involves:

1. A sensor: detecting the givens to be controlled
2. An assessor: comparing what happens to what should happen
3. An effector: changing behaviour
4. Communication network

Prices were determined by macroeconomic policy makers, such as the exchange rate, and Industrial policy makers were price takers whose job was to make production profitable.
Some countries created free trade zones but few firms except those In the labour-Intensive Industries took advantage as they were still not competitive; development planners then offered duty drawbacks on Imported Inputs that were embodies In exports but with few results therefore they Introduced subsidies to the textile and mid-tech Industry that were tied to a performance standard.
As Industries scaled up, performance standards shifted to research and development.
Starting in the late 1950s allocation of subsidies was systematized and the problem of moral hazard was overcome by governments allowing owners to go bankrupt: leaving production capacity intact but transferring ownership.

Globalization and National Ownership

China, India, Korea and Taiwan began to invest heavily in their own proprietary national skills which helped them to sustain national ownership of business enterprises in mid-tech industries. By contrast Argentina and Mexico increased their dependence for future growth on foreign know-how.
The make or buy technology choice was not black or white but a division between integrationists and independents arose. The main difference between the two approaches was rooted in the history of the country's manufacturing experience and income distribution.

Manufacturing Experience

Prewar manufacturing experience fell Into three categories:

1. pre-modern: emerging from artisan handcrafts, found In China, India, the Ottoman Empire and Mexico.
2. émigré: arising from know-how transferred by emigrants, from China for example to Indonesia, Taiwan, Thailand and Malaysia.
3. colonial: emerging from former colonial ties, from North Atlantic In India and Japan In Taiwan for example.

Manufacturing experience Is therefore a stock of knowledge that passes through a specific historical and Institutional filter, distinguishing countries within the rest.

Europe at the Turn of the Twenty-First Century
Eichengreen (2007)

A global divergence in labor expansion happened, particularly between U.S.A. and Europe, with a sharp decline in labor input in the latter, while there has been labor expansion in the U.S. and especially in Asia.
Firstly, it is important to start from the assumption that GDP is not a perfect measure of welfare in a society and that Europe enjoys lower level of infant mortality, earnings inequality, poverty rates and rates of violent crime.

Europe's GDP per capita has being from more than 30 years and is still today two thirds of the U.S. level. However, Europe's output per hour worked is just slightly lower or – in some countries, like France – even higher than U.S. level.

Unemployment is one of the major European problems nowadays, being twice the American level, and usually seen as the cause of its rigid labor market. However, this is not preventing Europe from dominating the international export market. Bureaucracy, which constitute often an obstacle to the creation of new start-ups, is considered in the meantime the cause of better product standards.

Difference in per capita GDP between Europe and U.S. is determined by three causes, happened after 1975:

1. European lower output per hour worked (although it is converging with U.S. level);
2. Fewer hours worked per employed (1500 hours in Europe against 1800 in U.S.);
3. Lower employment rates.

Despite this, employed labor force in Europe is very productive, mostly marginal workers are unemployed and European workers had a stronger desire to take some of their increased in income in leisure time, than their American counterparts.

There are different arguments trying to explain Europe's shorter hours:

1. The MIT School links them to a cultural preference of leisure over extra pay and states that this preference is accepted by political establishment. However, this is not supported by convincing experimental evidence and does not explain the lower participation rates among women and older men (factors that seem to be determined by differences in social security provision and similar policies);
2. The Minnesota School links them to different tax system (taxes increasing in income), since in U.S. lower taxes imply higher incentives to work. The overall gap in taxes between Europe and U.S.A. is 10% and an excessive tax burden makes people prefer leisure time over work. However, in some countries – such as Ireland – despite the lower level of taxes, hours worked are in line with European trends;
3. Alesina, Glaser and Sacerdote (2005) argue that one reason can be the presence in Europe of powerful unions and a rigid labor market that prevented in the mid-1970s a reallocation of labor (when productivity was declining in certain sectors). Unions in declining sectors encouraged shorter hours and work sharing and, due to coordination externalities (difficult to work if other are not working at the same time), this affected the whole economy.
4. Empirical evidence highlights that correlation is weak within European countries (e.g. Scandinavia has the highest tax rates, but low unemployment and high labor participation). Moreover, income taxes were very high during the Golden Age and this does not explain long term unemployment.

High unemployment is mostly structural, dominantly in declining sectors, there was limited occupational mobility relatively to United States.

Long term unemployment was characterized by workers that were out of employment for years and usually stayed unemployed. There was depreciation of human capital and consequent 'de learning by doing' (working skills, discipline). Youth unemployment was instead a new phenomenon with large differences within the Europe.

But even if unemployment was a problem for the whole continent, three countries can be deemed virtuous examples:

1. Netherlands. Unions, employers and the government decided to freeze wage increase and minimum wage while at the same time reducing labor taxes, thus keeping real wages stable. The government also implemented structural reforms of the unemployment insurance system and of disability insurance system (tightening qualification requirements), introducing for example part time work for women. This produced an increase in labor participation and therefore broader tax base and, in the end, fall in unemployment rate;
2. Ireland: Government supported the bargaining between trade unions and employers to limit wage increase in exchange for a decrease in labor taxes with the Program of National Recovery (1988). The balance between labor cost and productivity improved and employment rate increased. Moreover, labor supply was augmented by reduction in emigration and return flows from abroad that – with the reform of the educational system – made Ireland an attractive production platform. By 2000, unemployment decreased and GDP per capita rose.
3. Germany and Austria. Dual track educational system (combines apprenticeships in a company and vocational education at a vocational school in one course) and subsidies for low-cost employment and regional mobility.

A lot of favorable factors, such as demographic change in Ireland or currency depreciation (decline of European currency against dollar in the middle 1980s), in both Ireland and Netherlands are nowadays not available, but reducing unemployment is not impossible. In the European Union reforms as to be made, labor costs can be reduced through a limitation in wage growth accompanied by a decrease in taxes, there is the need for expansionary monetary policy, for a more flexible labor market and an action of the government to solve the problem of coordination due to the existence of several different unions, in this process the integration of eastern

European countries will be an incentive for labor market reforms (to ensure that domestic producers don't relocate production in low wage countries).

The African Crisis

Arrighi (2002)

Political Economy of Africa, "new " and "old"

The idea that the primary responsibility for the African tragedy lies with African elites and governments has been common to most interpretations:

- Berg Report (1981), the assessment was highly internalist and critical of the African governments for having undermined the process of development by destroying agricultural production output and exports.
- "Markets and States in Tropical Africa" by R. Bates (1981), explains how state offcials in newly independent countries used the instruments of economic control inherited from colonial regimes to benefit urban elites undermining the process of development.

These internalist views where challenged by the African government in the Lagos Plan of Action (1981), which traced the sources of the crisis to a series f external shocks and saw resolution in fostering greater economic integration and cooperation. However after the Sahelian drought and famine of 1983-4, in 1985 the OAU produced the Africa's Priority Program for Economic Recovery which openly acknowledge the responsibilities of African governments for the crisis, and agreed to implement a variety of policies consistent with the berg report.

Arrighi and Saul's view pointed out a pattern of "surplus absorption" as the most central of these problems: the benefits for the elites were restraining the growth of agricultural productivity (.→ concept of perverse growth) and domestic markets and that a change of these patterns required an attack on the privileges of the elites. However they paid greater attention to the global context surrounding the development of the African countries, giving a key importance to world capitalism in shaping outcomes.

Uneven Development of the African Crisis

Although Africa Is by far the worst performer among Third World regions, this was almost entirely a post-1975 phenomenon. Furthermore a sharp bifurcation between Sub-Saharan Africa and the performance of East and South Asia happened after the 1975 date along with some Important reversal of tendencies within the first world Instead.

World Systemic context of the African Crisis

The global crisis of the 1970s was simultaneously a crisis of profitability and of legitimacy. Policies and ideologies that had played an essential role in launching and sustaining the worldwide expansion of trade and production in the 1950s and 1960s—so-called Keynesianism, broadly understood—became counterproductive. The initial response of the United States to the crisis—withdrawal from Vietnam and opening to China, but continued adherence to Keynesianism at home and abroad—only worsened it, provoking a precipitous decline of US power and prestige; Integral to this decline was a widespread disenchantment with the 'development project' launched under US hegemony. Initially the global crisis seemed to improve the economic prospects of Third World countries as the terms of trade—especially for oil-producing countries—improved. Third World countries sought to renegotiate the terms of their incorporation in the global political economy.
The United States, which in the 1950s and 1960s had been the major source of world liquidity and of direct investment, in the 1980s became the world's main debtor nation and by far the largest recipient of foreign capital. This was a reversal of historic proportions, likely to be the single most important determinant of the contemporaneous reversal in the economic fortunes of North America and of the bifurcation in the economic fortunes of Third World regions → On the one hand, there were those that, had a strong advantage in competing for a share of the expanding North American demand for cheap industrial products → on the other hand there were regions that, for historical and geographical reasons, were particularly disadvantaged in competing for a share of the North American demand.

The African Crisis in Comparative Perspective

Why South Asia performed much better than Latin America and Sub-Saharan Africa was because through the 1970s, Latin America and Sub-Saharan Africa had become far more dependent on foreign capital than East or South Asia; As the re-direction of capital flows towards the United States gained momentum, such dependence became unsustainable.
Comparing Sub-Saharan Africa and South Asia on

- Labor

Arthur Lewis's classic argument that underdeveloped regions are characterized by 'unlimited supplies of labour' never really applied to Africa, where labour appears to have always been in short supply. The precolonial contact with Western countries though import of guns and the export of slaves—undoubtedly worsened whatever structural shortage of labour. Under colonialism the supply of labour did expand; but so did the demand for it. During and after de-colonization, the underlying shortage of labour was reproduced partly by a demand for Africa's natural resources which remained brisk, and partly by the efforts of the newly independent states to modernize and industrialize. Only *after* the collapse of the 1980s structural labour deficit turned into a labour surplus in spite of the collapse of urban 'internal labour markets'.

East Asia's structural abundance of labour relative to natural resources had multiple origins. In part, it was due to the material culture of rice cultivation. In part, it was a consequence of the China-centred 'population explosion' which followed the intensification of commercial ties with the Western world in the sixteenth and seventeenth centuries. It was only in the 1980s—when these efforts in the capital- and natural resource-intensive techniques became both more labour-intensive and more successful.

- Entrepreneurship

Fortunately for East Asia, and unfortunately for Sub-Saharan Africa, the discrepancy between local entrepreneurial resources inherited from the colonial and pre-colonial past was also far more favorable to East Asia. The latter was in fact by far the oldest and most extensive among the region's entrepreneurial networks.

Nothing of the sort could be observed in Sub-Saharan Africa.

- State- and national-economy formation.

These competitive advantages of East Asia and disadvantages of Sub-Saharan Africa were compounded by the very different legacies each inherited in the domains of state-formation and national-economic integration. throughout the eighteenth-century East Asia was ahead of any other region of the world, Europe included, in both respects. In sharp contrast to East Asia, Sub-Saharan Africa inherited from the pre-colonial and colonial eras a political-economic configuration that left little room for the construction of viable national economies or robust national states.

IN COLLABORATION WITH